ADMINISTRATION REPORT

OF THE

PUBLIC HEALTH DEPARTMENT OF THE CITY OF PORT-OF-SPAIN

FOR THE YEAR

1955

BY

DR. RODERICK MARCANO, O.B.E., M.D. (Lond.), M.R.C.P. (Lond.), D.P.H. (Lond.)
MEDICAL OFFICER OF HEALTH

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Administration Report of the Public Health Department of the City of Port-of-Spain, Year 1955

CONTENTS

Public Health Department,
35, Frederick Street,
Port-of-Spain,
Trinidad, B.W.I.

3rd October, 1956

URBAN SANITARY DISTRICT OF THE CITY OF PORT-OF-SPAIN

Secretary, Local Authority,

I have the honour to submit, for the information of the Local Authority, the Annual Report on the health and sanitary condition of the Urban Sanitary District of the City of Port-of-Spain for the year ended 31st December, 1955.

Recovery from the shock of two major outbreaks of infectious disease which unfortunately had to be recorded in my last annual report and which fortunately left so few permanent marks on the health and sanitary condition of the City has been so complete, that it is with a feeling of satisfaction and without the uncertainty or anxiety that characterised my report for 1954 that I record that no major event of an untoward nature descended upon the Urban Sanitary District during the year 1955, and as a result there has been no deterioration in the *status quo* such as has been depicted in the various reports, annual and special, that I have previously addressed to the Local Authority. In fact, if anything, there has been a slow but steady "improvement" in the state of health and in the sanitary condition of the City, as can be expected from the conscientious performance of routine duties, the extension of the various public health campaigns to cover all premises within the limits of the City, and the regular and constant check of personnel and equipment with a view to attaining that degree of efficiency and perfection that is a *sine qua non,* if lasting results are to be achieved.

That, however, is the most that can be claimed in regard to a situation that is far from being satisfactory, and to which constant reference has been made before in so many annual and special reports to the Council.

Not in his wildest dreams can a public health officer conceive the full quota of his duty to the Local Sanitary Authority to be that of maintaining the *status quo*. His must be the duty of constantly seeking ways and means of improving the standard of health and sanitation in the area under his care; he must, of course, at all costs "prevent" but he must at the same time "improve".

It is here, of course, where the rub lies.

No rapid or lasting improvement can take place in the Urban Sanitary District of the City of Port-of-Spain unless the major problems affecting the health and sanitary condition of the City, to which I shall again refer later on in this report, are tackled with the vigour and vision that lead to success, and the major works directed to their solution undertaken with expedition and determination by men whose minds are made up.

Nothing unusual, as I have stated before, served to disturb the even tenor of the work of the Public Health Department during the year under report and routine activities continued unabated.

The anti-mosquito, anti-rat, and anti-bat campaigns were stepped up and intensified; the campaign directed to the provision of clean wholesome food expanded throughout the length and breadth of the City; the disinfection and disinfestation, and cleaning of cesspits units continued their day-to-day routine; and all the other units, both indoor and outdoor, functioned satisfactorily.

As in all matters involving the human element, and as in all circumstances such as ours where operatives are employed outdoors on a skilled and technical job often far away from their headquarters, the workers of this Department have to be constantly taught and instructed in the details of their work, they have to be constantly supervised, encouraged and exhorted, and often to be disciplined; but it is gratifying to be able to record a growing sense of responsibility, and the deep interest in, and the keen appreciation of, the health problems they are called upon to solve.

In one particular direction, however, the Department has been able to break new ground. With the return of one of our Sanitary Inspectors from the United Kingdom where he attended the health education course of the University of London and obtained the Diploma in the content and methods of health education, we have been able to establish a Health Education Unit as such with the primary and specific objective of inculcating in the citizens of the Urban Sanitary District an understanding and appreciation of the health problems in their particular areas, and so obtaining their co-operation and collaboration, without which the work of the Department would be severely handicapped and the elimination of the police methods which we must inevitably resort to in the existing circumstances indefinitely delayed.

The Unit, though only recently started, has already been able to achieve much and at the time I write concentrated effort is being directed, with the help of the various welfare bodies in and voluntary workers from these districts to the East Dry River and Belmont Sub-districts to secure better health and a higher standard of general sanitation.

It is hoped, of course, to extend the activities of this Unit to all areas within the limits of the City.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

There is not much to record under this heading that has not been reported in previous reports and the position remains substantially the same as has been detailed in the last annual report.

The size and acreage of the City remains the same, viz. 2,550 acres, but the population has increased to 117,000 the estimated figure representing a little less than one-sixth the mean population of the Colony, estimated now at 720,800 souls. It is clear, therefore, that the density of population within the limits of the Urban Sanitary District is increasing and now works out at 46 persons per acre.

During the year under report the question of increasing the size of the City by incorporating certain adjacent areas to the North and north-east was mooted but events took no definite shape until the year 1956 when a resolution to that effect was adopted by the Council, and at the time I write the matter awaits finality.

Congestion, overcrowding, and insanitation in the East Dry River and Belmont sub-districts are now at their maximum and the Department is hard put to it to maintain a standard of public health in these areas that is compatible with decent living, and will not fan the flames of an epidemic if and when infectious disease does happen to gain a foothold. Major extraordinary works are urgently called for here.

The shortage of housing accommodation to which I have time and again referred is now at its maximum due to the fact that very few new dwelling houses have been erected in the period under review by landlords, and existing houses have been allowed to fall into such a state of disrepair that it is not unusual for them to collapse on their tenants, such as has occurred in at least three instances during the year.

Slum clearance at the usual snail pace that lack of funds has dictated during the past few years continued during the year 1955, but the core of the problem continues to remain untouched and the scratching of the surface that has been taking place only serves to show up the magnitude of the problem of housing shortage in its true and proper perspective.

Water supply in the eastern hilly areas has been inadequate and spasmodic and the stand pipe service in these areas has been taxed to the utmost on the occasions when water has been available.

Shanty Town continued its uninterrupted growth in the year under report and attempts to solve this growing problem and grave potential menace to the health of the City can be succinctly described in two simple words : masterly inactivity.

In so far as the reclaimed lands South of Wrightson Road and the old "Cipriani Airfield" South of Mucurapo Road are concerned, the answer is the same as elsewhere, viz. " the matter continues to receive active consideration" but no houses have been built, no plans have been approved and the lands continue to do service as a pasturage for cattle, donkeys and goats; a harbourage for coconut shells, discarded tins and other receptacles and consequently a breeding ground for mosquitoes; a dump for rubbish and refuse; and a quarry for sand and stones used by unscrupulous contractors who work by night and sleep by day.

How soon the red tape surrounding this matter will be severed and building so urgently needed to relieve the acute housing shortage commenced is the problem that perplexes each and every one of us and your guess is as good as mine.

SANITARY CIRCUMSTANCES

Water

The same sources of water, viz., 3 river sources and 5 well sources continued to supply the City with potable water during the year under report. Progress in our attempts to provide the City with an adequate water supply, free from any suspicion or possibility of pollution, has been snail-like. It is true that during the year under report funds were made available to sink two more boreholes in the Queen's Park Savannah, and towards the end of the year work was being actually undertaken to that end; in fact Savannah Well No. 2 opposite Government House and Savannah Well No. 3 opposite Queen's Royal College were actually ready and were being pumped to waste with a view to testing their potability before connecting up with the Distribution System.

The water from all these well sources maintained its potability and with the exception of Wharf Well No. 3, which has shown a high saline content ever since it was commissioned but which is otherwise safe in every respect and quite potable, presented no untoward feature of any kind.

The river sources on the other hand ran true to form and were subject to regular flooding during the rainy season and so forcibly cut off from the Distribution System, and diminished so rapidly in volume during the dry season as to make it imperative to supplement their contribution to the Distribution System by water from outside sources when that was available.

In fact the situation in the City and even outside the City, was such that an all-round shortage of water supply existed at a time when it was most needed, viz., during the latter half of the dry season and there was and is very little that can be done about it until the Colony's water supply has been substantially increased, steps to secure which are being actively undertaken at the time I write.

The potability of the water supply is beyond question but in the case of the river sources this has often to be achieved by the addition of the sterilising chemical, chlorine, in amounts that could be greatly reduced if the catchment areas of these river sources were as free from the possibility of serious pollution as is so desirable in a river source of water supply.

The facts are that catchment areas which forty years ago were quite distant from the built-up areas of our City and were strictly rural in character have become with the passage of time and with the gradual expansion of the City largely urbanised and great difficulty is experienced in stopping the building of houses and the erection of agricultural shacks in these catchment areas in spite of the bye-laws that have been framed and passed for the specific purpose of safeguarding the water supply.

The bye-laws are being constantly contravened and owners have to be prosecuted in court to make them realise the gravity of their offence and the absolute necessity of maintaining a pure water supply free from the possibility of pollution, seeing that the water from these river sources is the main supply for such large numbers of our citizens.

I must repeat that the river sources of our water supply must be scrapped at the earliest possible opportunity and replaced by water from a source that is pure and is and can remain free from the possibility of pollution. Only by so doing can a safe water supply, free from suspicion and for the sterilisation of which only minimal amounts of chemical will be needed and which will maintain a reasonable volume throughout the year, be obtained.

Only by so doing will the various catchment areas like the Maraval, St. Ann's and Cascade Areas be freed from restriction in so far as building is concerned and those areas opened for the extension and expansion of the City, and for the provision of dwelling houses for its hard pressed and homeless residents which is such an urgent and pressing necessity.

Bacteriological Examination of Water Supply, 1955

Where Derived	No. of Samples taken	Results of Examination			
		Safe	Unsatisfactory (Presumptive B. Coli present)	Not safe without further treatment (Non-faecal)	Not safe without further treatment (faecal type B. Coli present)
*Cocorite Wells	84	82	2	—	—
Docksite Wells 3 (untreated)	51	45	5	—	1
†St. Clair Pumping Station	42	39	1	—	2
‡St. Clair Well (untreated)	—	—	—	—	—
‡St. Clair Well (treated)	41	40	1	—	—
Wharf Well No. 3 (untreated)	11	11	—	—	—
Queen's Park Savannah Well (untreated)	53	52	1	—	—
†Maraval Reservoir	36	34	—	—	2
§Cascade Reservoir	86	84	2	—	—
§St. Ann's Reservoir	159	149	8	—	2
Knagg's Hill Reservoir	36	36	—	—	—
Laventille Reservoir	30	26	3	—	1
‖Picton Reservoir	35	34	1	—	—
¶143, Charlotte Street (Tap)	37	37	—	—	—
¶133, Henry Street (Tap)	41	41	—	—	—
¶Colonial Hospital (Tap)	35	32	3	—	—
Masson Hospital (Tap)	34	33	1	—	—
Microbiological Institute (Tap)	42	42	—	—	—
Saddle Road, La Seiva (Tap)	34	30	1	—	3
Sanitary Laundry (Tap)	40	39	—	—	1
Trinidad and Tobago Electricity Commission (Tap)	38	36	—	—	2
Furness Withy & Co. (Taps)	116	100	16	—	—
St. James (Taps)	21	20	1	—	—
Woodbrook (Taps)	39	37	2	—	—
City Proper (Taps)	65	63	2	—	—
East Dry River (Taps)	27	25	2	—	—
Belmont (Taps)	27	26	1	—	—
St. Clair (Taps)	46	43	3	—	—
Wells on Private Property					
Electric Ice Co., 3A, Ariapita Avenue	41	36	5	—	—
Canning & Co., 60–68, Richmond Street	80	80	—	—	—
	1,427	1,352	61	—	14

Standard of Purity : B. Coli absent in 100 c.c.

*Chlorinated, not filtered

†Filtered after chlorination

‡Chlorinated before distribution

§Filtered before chlorination

‖Filtered before chloramination

¶Chlorinated, after having been filtered and chloraminated

Chemical Examination of Water

Samples examined by Government Chemist—1955

Where Derived	No. of samples Examined	No. of samples found safe
Picton Reservoir	31	31
Maraval Reservoir	10	10
Cascade Reservoir	11	11
St. Ann's Reservoir	11	11
Cocorite Pumping Station	11	11
Cocorite Pumping Station (for salinity)	192	192
Docksite Wells	14	14
Queen's Park Savannah Wells	10	10
St. Clair Well	11	11
Wharf Well No. 3	1	1
	302	302

Drainage and Sewerage

Not much in the way of improving the drainage and sewerage system of the City has been achieved in the year under report in spite of the fact that herein lies one of the most urgent and pressing needs of the Urban Sanitary District.

The extension and improvement of drainage and sewerage systems are, of course, usually in the nature of major works and, as I have stated before, very little in the nature of major works has been undertaken or executed during the past few years due mainly to lack of funds and indeed whatever has been done—and this has been mainly in the nature of drainage works—has been undertaken by the Central Government on whom the duty devolves of maintaining main water courses that have their commencement outside the limits of the City but course through and terminate eventually at the southern boundary of the City.

Drainage works on the Santa Barbara Ravine in the Belle Eau Road area of Belmont were actively in progress and the Harding Place project in the Cocorite Area was almost completed towards the end of the year under report. At the moment I write, work on the Santa Barbara Ravine project has come to a standstill for the time being and the new and unfinished channel that has been constructed constitutes an occasional source of nuisance where stagnant water collects and mosquitoes lay their eggs, and regular constant oiling has to be resorted to, to abate a nuisance that gives rise to numerous complaints by residents of the area to the Public Health Department.

Sewerage in the whole eastern section of the City, i.e., the area between the Dry River and the eastern limits of the City is, of course, non-existent and cesspits cheek by jowl with dwelling houses, often within the prescribed statutory distance of 12 feet due to lack of space, and a few septic tanks, so-called, and cesspools, are the order of the day.

These pits, tanks, and cesspools are subject to the periodic floodings that take place in this area due to subsidence and erosion of land which renders them permeable, and then sullage water and faecal matter find their way into yards, earthen drains, beneath houses and in the roads, tracks and ravines that adorn this area.

It is not difficult to conjure up a mental picture of this distressing state of affairs and of the suffering, misery, and ill-health that it gives rise to.

In the sewered section of the City the whole sewerage works need overhauling, replacing, and repairing, the system being an old one laid down many years ago when the City was small in size and the population less than half what it is at present.

It is not unusual for complaints to pour into the Department when a sewer main bursts, as it does occasionally in the lower southern parts of the City, especially in the rainy season when during a heavy downpour the mains are running full and the pumps at the Mucurapo Pumping Station are unable to pump the sewage fast enough through the outfall to sea.

In the sewered sub-district of Woodbrook privy cesspits and septic tanks are being gradually eliminated and every opportunity seized to secure the connection of premises with the Council's sewerage system, but the pace at which this work proceeds is dictated by the amount of funds available for the purpose, the Council being permitted by the terms of the Ordinance to do the necessary works and the householder to pay by yearly instalments over a period of years.

There is hardly any need for me to repeat that works of drainage and sewerage are an urgent and pressing necessity and this can only be done on a comprehensive basis and by means of a long term loan.

Scavenging and Refuse Disposal

Scavenging and refuse disposal are under the care and control of the City Engineer's Department and the officer in immediate charge of this service is the Manager, Transport Train.

The task of keeping the City of Port-of-Spain clean and sweet is one of no small magnitude and an impartial observer will admit that the job is tolerably well done and that Port-of-Spain is a fairly clean City.

Gaps there are, of course, and the scavengers are guilty of many sins of commission and omission, but on the whole they are to be commended on the achievement of clean and sanitary conditions generally, but especially in the central lower down-town areas of the City.

In the hilly north-eastern and south-eastern areas there is much leeway to be made up and these areas, because of the precipitous nature of the terrain, the primitive undeveloped state of the road system, the numerous ravines and tracks that abound, and the improperly laid out lots, are often imperfectly scavenged.

The heading of refuse down the hills in bath pans on the heads of female scavengers cannot be said to be a satisfactory method of dealing with the problem and the results achieved cannot be considered commensurate with the trouble and expense involved.

Heaps of refuse still accumulate at odd spots to be scratched away by fowls and sorted by stray dogs in search of bits and pieces; refuse is strewn and deposited on vacant lots, open spaces, earthen ravines and drains, in lanes, passages and tracks in the East Dry River and Belmont sub-districts and thus create a variety of nuisances besides providing food and shelter for rats, and stagnant pools and depressions where water collects and mosquitoes breed.

The remedy is immediately to provide a short-wheel base and low-loading line truck of small capacity capable of travelling on these narrow roads and lanes and of negotiating the sharp turns and steep curves that are a feature of this area. Householders could then be encouraged and even compelled to provide "regulation dustbins" which would be put out at the prescribed time to be discharged and emptied into the trucks as they go around from house to house.

When this becomes an established day-to-day practice and the householders' confidence gained, the efficiency as well as the hygiene of this method of collection will be appreciated and indiscriminate dumping of refuse will come to an end.

When, and if these areas are properly laid out in accordance with a comprehensive plan and good roads and efficient drains constructed connecting up with the main road and drainage system of the rest of the City, scavenging will be correspondingly facilitated and the East Dry River and Belmont sub-districts become as clean and as sanitary as the central parts of the City.

Scavenging on Sundays which at the moment is confined to the central and low-lying sections of the City should be made universal in all parts of the City seeing that dustbins are already full on Saturday nights and inability to get them emptied on Sunday mornings leads inevitably to the dumping of refuse in yards and drains and even in the streets and lanes.

The storage of refuse in proper dustbins previous to their being emptied in the scavenging carts and trucks to be transported to the Eastern Dump for final disposal occasions some difficulty, because of the comparatively high price of a proper dustbin and the ease with which dustbins "disappear" and the "brutal" treatment to which they are subjected by the careless and rude type of scavenger, quite a few of whom are still to be found among the workers of the Transport Train.

When one considers that a dustbin costs anything up to 8 dollars, it is clear that in the present state of our economy and with the earning capacity of the average type of householder in these peripheral areas what it is, it is a pretty severe strain on his pocket to ask him to provide a dustbin every two months or so.

In fact it is inevitable that refuse be deposited in cartons, boxes, paper bags, &c., and a plea is here made for understanding and co-operation on the part of the scavenger as well as the householder and for a far more liberal interpretation of the bye-laws so as to permit the use and the collection of these cartons, boxes, &c., with more toleration and goodwill than obtains at present.

The Eastern Dump

I regret to be forced to state that conditions at the Eastern Dump deteriorated greatly during the year under report and that the Eastern Dump reverted to the *status quo ante* due in large measure to the fact that the bulldozer loaned to us by Government was withdrawn and dispatched to Grenada to deal with the devastation and ravage caused by hurricane "Janet".

With the help of the bulldozer and with the practice of a measure of controlled tipping, the sanitary state of the Eastern Dump had improved considerably, and the Dump had begun to assume that level, ordered, and business-like appearance that one usually associates with dumps where controlled tipping is practised, and where deposition, compression and covering of refuse on a limited advancing face is resorted to.

As soon as the bulldozer was withdrawn controlled tipping came inevitably to an end, refuse was dumped helter skelter at any point that was convenient to the scavenging trucks and carts, the unrestricted invasion of the Dump by all and sundry recommenced; and the army of collectors of pig food, purveyors, searchers and haulers of old metal, used bottles, old wood, used paper, old rags, bits and pieces of all kinds, reappeared on the scene.

The result was that nuisances previously complained of reappeared, and fly, rat and mosquito breeding became the order of the day.

So extensive had fly breeding become that the whole neighbourhood was invaded and no building, dwelling or business place for a radius of more than a mile around was free from fly nuisance, and flies from the Dump found their way to the more remote sections of the City as the trucks, carts and other vehicles travelling along the adjoining Eastern Main Road with the quota of flies they collected from the Dump wended their way to the heart and periphery of the City. Spraying with a mixture of gammexane and malathion, the latter a new insecticide which is being given a trial, had to be resorted to and whenever and wherever possible, firing was undertaken with a view to destroying fly larvae and so limiting fly breeding to a certain extent.

The gangs on the Dump were exhorted to redouble their efforts with shovel and rake, which they did manfully, and so a serious situation fraught with grave potential danger to the health of the City and the Colony and likely to affect adversely the international obligations to which we have committed ourselves and which we owe to the countries around as a result of the outbreak of yellow fever in 1954, was happily averted.

At the time I write the bulldozer has been returned to us and the ground is once more being levelled, heaps of earth for use in controlled tipping are reappearing, and refuse is once more being dumped in a regular way and compressed and covered with earth at the end of the day.

A lot more, however, needs to be done; the roads that lead to the advancing edge of the Dump are far from satisfactory; they are not properly or solidly built up; they are inadequately drained; the large storm and waste water drain that courses from East to West and then South is not being cleared regularly or kept free from obstacles and the shacks and shanties at the south-western end continue to multiply unimpeded and uninterrupted, and the complex problems of sanitation and the spread of infectious disease that they create continue to grow with each succeeding day and continue to be a source of ever increasing worry and anxiety to the Public Health Department.

SANITARY INSPECTION OF THE DISTRICT

Premises and Occupations controlled by Bye-laws and Regulations

Food

The relation of food to public health is clear and needs no further elaboration here, and the work of securing a clean safe and wholesome product continues to be one of the main preoccupations of the Public Health Department. This work is directed and operated in accordance with the Sale of Foodstuffs Bye-laws which were enacted as long ago as August 1937, and it can be stated here that in spite of the difficulties associated with their enforcement the Department has succeeded each year in getting compliance with the bye-laws on the part of an increasing number of food manufacturers, food handlers, and food vendors without recourse to the process of law.

In conjunction with our efforts directed to the enforcement of the bye-laws, the process of education goes on and we hope the day will soon dawn when the word "compulsion" will rarely be used in our clean food campaign. Though we have succeeded in getting the greater number of hotels, restaurants, groceries, shops, parlours and other food places to register in accordance with the bye-laws, there still remains a large number of such places which fail to register and in fact which cannot be registered.

For registration carries with it certain essential prerequisites and connotes a certain standard of hygiene and sanitation that some food places can never attain in the existing circumstances of their layout and construction.

Some food places are cheek by jowl to sanitary conveniences which ventilate freely into them, are without clean running water which cannot be supplied them, are located in odd corners and nooks and make use of space which was never meant to be occupied, and which is so restricted that a proper kitchen cannot be provided, where no room exists for the proper storage of foodstuffs, and no provision can be made for the proper accommodation of the workers in dressing rooms with sufficient lavatory basins to secure the efficient washing of hands. In such circumstances the most that can be done is to indicate clearly to the owner that the premises are of such a nature and in such a condition that registration cannot be recommended and he must proceed either to acquire new premises or by reconstruction or extensive reconditioning and rearranging to put his "house in order".

I need hardly state that this type of owner is invariably the most difficult of all to deal with and it is only by laying information against him and by taking him to court that, in the long run and usually after a series of adjournments, any success is achieved in getting him to comply.

Itinerant vendors present a problem to the clean food campaign that is not easy to solve. These vendors are scattered all over the City but concentrate in the central down-town areas particularly, and because of the fact that the kinds of foodstuffs that they sell vary with the seasons of the year, their types vary, the containers that they use vary, their appearance varies, and their habits and customs vary.

Often it happens that just when the vendor has at last been located and rounded up, and he has been made to provide himself with an efficient, properly covered tray and be properly and cleanly clad he has to disappear from the scene because the season for the particular kind of foodstuff that he sells has come to an end.

But progress is being made in the case of those itinerant vendors who ply their trade regularly throughout the year though it is a hard and up hill game. This type of food handler is in the majority of cases the most uneducated of the lot and the most difficult of all to convince of the necessity and advantage of clean food handling.

The wrapping of foodstuffs is a practice that is more honoured in the breach than in the observance because the bye-laws are not sufficiently explicit on this point, but grape vendors, apple vendors and the other vendors of perishable foodstuffs that are usually eaten raw are being gradually persuaded that it pays to keep their foodstuffs properly wrapped and protected from contamination with dirt, dust, and vermin because the customer is now educated in the purchasing of only those foodstuffs that are kept clean and uncontaminated.

I am compelled once more to make reference to the fact, as I have done so often before in annual reports and elsewhere, that the Local Authority is the owner of Institutions scattered about the City where foodstuffs are either prepared for sale or exposed or offered for sale, or deposited for the purpose of sale or actually sold, from the operations of which a good deal of revenue flows into the coffers of the Corporation through rates and charges, but wherein unfortunately the standard of hygiene and sanitation leaves much to be desired. I refer to the Abattoir and Fish Market, the Eastern Market, the Woodbrook Market, the Workingmen's Dining Shed.

All these Institutions, it is true, are old and timeworn and need replacing by structures of modern construction and more properly laid out for the purpose for which they are being used, but we must on no account fail to set the example whilst at the same time we continue to urge, exhort, and even to compel the food handlers and food vendors to comply strictly with the bye-laws which we have ourselves enacted.

Such a position will never do and more and more the Department is being told to remove the beam that is in our own eye before proceeding to behold the mote that is in other people's eyes.

Funds must be found to erect such structures and to secure such equipment and appliances as will insure that contamination of foodstuffs by dirt, dust, dung, flies and vermin does not take place in the Institutions under our care and control.

Sale of Foodstuffs Bye-laws

Registration of Shops, Etc. (1955)

Provision, meat, and spirit shops, restaurants, hotels, refreshment parlours ...	300
Ground provision and fruit shops	29
Bakehouses	6
Confectionery shops	1
Aerated water factories	3
Other factories	12
Total 1955	351
Total 1954	429

Registration of Vendors (1955)

Bread and cakes	51
Confectionery	5
Cooked food including fries, souse, &c.	67
Ice cream and palets	34
Sweet drinks	23
Vegetables, greens, fruits	104
Miscellaneous	46
Total 1955	330
Total 1954	299

Number of badges issued to itinerant vendors	330	(299–1954)
Number of oyster vendors licensed under Sale of Oyster Bye-laws	Nil	(Nil–1954)

Sale of Milk Bye-laws

Dairies and Milk Shops (1955)

Sub-Districts	*Cowshed Licences Issued*
City proper	—
East Dry River (unsewered)	—
Belmont (unsewered)	—
Woodbrook (sewered, but premises not all connected with the sewerage system)	2
St. James (unsewered)	5
Total 1955	7
Total 1954	4

Dairymen's Licences (1955)

Dairymen's licences issued to cowkeepers and other purveyors of milk ...	7
Dairymen's licences issued to shops, milk bars and refreshment parlours ...	40
Total 1955	47
Total 1954	57

MILK VENDORS' LICENCES AND BADGES (1955)

	Milk Vendors' Licences	*Cows Tuberculin Tested*	*Badges*
Port-of-Spain	40	198	12
Out-districts	50	147	50
Total 1955	90	345	62
Total 1954	122	341	81

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED—1955

Under Part X of the Public Health Ordinance, Ch. 12. No. 4

Apples	cartons	1
Baking Powder	cans	18
	cartons	1
Beef (corned)	tins	32
Beef (iced)	pounds	46
Biscuits	boxes	4
	cans	1
	cartons	2
Bitters	casks	1
Bubble Gum	boxes	62
Butter (cooking)	cans	19
Cheese	boxes	52
	cases	4
	crates	2
Condiments	jars	24
Confectionery	pounds	33
Cornmeal	bags	2
	pounds	150
Fish (preserved)	bales	2
	barrels	1
	boxes	6
	cans	1,216
	cases	384
Fish (wet)	pounds	177
Flour	bags	74
Foodstuffs (preserved)	cans	30
Miscellaneous	cartons	1
	crates	40
Fruits and Fruit juices (preserved)	bottles	14
	cans	288
	cartons	5
	cases	17
	packages	96
Glucose	cans	24
Hams		481
Do.	packages	10
Do.	tins	276
Macaroni	packages	70
Meats (preserved)		
including bacon	barrels	33
chicken (frozen)	cans	230
corned and pickled	cases	79
beef, ox liver, sausages	pounds	552
	tierces	4
Milk (preserved)		
sweetened	cans	357
unsweetened powdered	cartons	1
Oats (rolled)	cartons	45
Onions	bags	567
Peas	bags	117
Potatoes	bags	5,271
	pounds	2,200
Salt (cooking)	pounds	40
Spices	cartons	1
Tomatoes	packages	8
Tomato paste	cans	289
Vegetable Soups	packages	514
Vegetables (preserved)	bottles	12
	boxes	29
	cans	265
	cartons	4

Anti-Rat Measures

No new development under this heading can be recorded during the year under report.

The routine work of abatement of rat nuisance and of the destruction and the elimination of rats and mice continued unabated, and the results achieved cannot be considered anything but satisfactory.

The Anti-Rat Unit was, however, reorganised so as to secure the coverage of the entire City and all the sub-districts and all premises within the limits of the City are being visited at regular intervals by operatives of the Unit, apart altogether from the matter of complaints of rat nuisance at the Department which are made by residents in the different parts of the City and which are and must be attended to first and foremost at the beginning of the day's work.

As I have stated before in previous annual reports the plan of campaign, wherever and whenever possible, is based on the concept of a comprehensive operation where numbers of premises or even a complete block of buildings are surveyed for evidence of rat nuisance and then prebating, poison baiting and post-baiting undertaken and executed in keeping with a definite plan.

Poisoning continues to occupy pride of place in our plan of attack and we are finding less and less use for traps or for gassing operations and the latter are resorted to only on rare occasions where an open area of land or a refuse dump is riddled with rat holes and rat harbourages abound.

Mice traps, however, still remain in great demand and we still find it necessary to resort to the use of rat traps in places and on occasions where poison cannot be used.

The numbers of rats and mice caught and their species are detailed in the table listed below but it is important for us to bear in mind that many rats and mice are indeed and in fact poisoned and die but are not accounted for due to the fact that death has not been instantaneous and the poisoned rats and mice have been able to escape to some obscure and inaccessable place where death has taken place and often it is only by the complaint of offensive smell that it has been possible to locate the decomposing dead bodies and the nuisance so abated.

This state of affairs is specially likely to occur when warfarin is the "poison" of choice, as the animal is seized with a compelling thirst and makes a straight bid for any available source of water.

More and more time is devoted to the teaching and training of the workers in this Unit in the "art and science" of rat examination, species identification, rat detection and rat destruction, as we are convinced that only an intelligent type of worker who is trained and who sets about his task armed with knowledge and anxious and willing to apply that knowledge and to acquire experience can succeed in doing this work properly and in achieving the objective of keeping down the rat population to a point where the spread of disease will not be facilitated.

It is clear, therefore, that in this Unit as well as in the Anti-Mosquito Unit and in the other Units of this Department only workers with a good elementary education and who are willing to undergo a preliminary period of training in the Department and in the field are likely to be a success, and sorting and sifting of the human material that presents itself for employment is an absolute necessity, if the work of this Department is to be successful.

DESTRUCTION OF RATS AND MICE, 1955

Rats caught by trappers	44,660
Rats bought	—
Total	44,660
Mice caught and destroyed	12,188

EXAMINATION OF RATS BY GOVERNMENT BACTERIOLOGISTS

Rats examined for plague	44,660
Rats found infected with plague	—
Immature rats not examined	—

SPECIES

	Decumanus	*Rattus*	*Total*
Males	8,737	3,180	11,917
Females	19,612	13,131	32,743
Total	28,349	16,311	44,660

Anti-Mosquito Measures

During the year under report the work of the Department directed to the eradication of the *aedes aegypti* mosquito continued uninterrupted and there was no let up in our concentrated efforts to get rid once and for all of that species of mosquito, *aedes aegypti,* which was responsible, we assume, for the case of urban yellow fever which occurred in the peripheral limits of the City in 1954 and which made it necessary to declare Port-of-Spain a "yellow fever infected" area with the consequent international complications of limited quarantine and all that that meant to the economy of the City and Colony generally during the 3 months that that label remained stuck on us.

The Anti-Mosquito Unit was reorganised to work in 6 gangs in the 3 zones into which the City is divided and the various cycles were speeded up with a view to concentrating efforts on those areas in each zone where the *aedes* index was highest and infestation had taken strong hold.

Due to the goodwill, loyalty, and willing co-operation of the operatives of this Unit and a keen understanting of the objective that was aimed at, the results achieved were quite satisfactory and we were well on the way not only to the elimination of the culprit mosquito but to its complete eradication, which is what is required and which is what we had undertaken to achieve when we accepted the help and advice of the World Health Organisation through its regional representative, the Pan American Sanitary Bureau.

At the time I write the index has been brought down to .4 but we must get down to zero and maintain that figure for the period of a year before the label of "yellow fever receptive area" now stuck on us can be taken off the City and the Colony.

To go from .4 to 0 is going to be as difficult, perhaps more difficult, than going from 4 per cent. to .4 per cent. as every small area without exception has to be cleared and every obscure potential breeding place has to be discovered and eliminated and the habits of the citizens changed in so far as basic sanitation and environmental hygiene are concerned.

Propaganda and education towards that latter end are well on the way through the Health Education Unit which was organised in August of the year under report and whose main objective is to work with the various community centres and welfare bodies in the different sub-districts of the City in a combined effort to achieve better health and proper sanitation.

The residents are thereby encouraged to take a keen interest in the matters affecting their health, to understand the whys and wherefore for the anti-mosquito campaign, to help themselves and to exhort their neighbours and friends to help themselves and to relieve the burden on the workers of the Department, particularly that of the clearing unit whose duty it is to go from house to house collecting cans, bottles, coconut shells, old tyres, &c., in fact all unserviceable containers that can possibly hold stagnant water and be a potential source of mosquito breeding.

One important fact that was established and gained universal acceptance during the year under report was that we were breeding here a species of *aedes aegypti* which had developed resistance to DDT formulations.

For some time now something of the sort was suspected; often we were at a loss to understand the numerous set backs we encountered in our anti-mosquito campaign, how, no sooner had we brought the index down to zero in one cycle, it started to climb up again as we proceeded elsewhere, and was found as high again as it was when we came to the second cycle.

In fact, the various officials of the Pan American Sanitary Bureau who paid regular visits to us were worried about the constant falling and rising of the *aedes* index and various explanations to account for this phenomenon were put forward always with a half-hearted feeling of guilt that some one was slipping up or something had gone wrong, until one of the self-same officials was brought face to face with an actual case in the peripheral limits of the City, where fresh DDT solution of more than five per cent. strength made with guaranteed technical powder of maximum standard strength was put into barrels full of *aedes aegypti* larvae, and he attested to the fact that these larvae were still alive at the end of seventy-two hours in spite of further repeated applications of the DDT solution by the official himself.

This finding led to further investigation and further experimentation until it was finally proved that the local species of *aedes aegypti* was growing resistant to DDT, as we had suspected all along.

Fortunately for us we were able to switch over to an insecticide which was available to us and which was being used on a limited scale to get rid of other infestations like flies, bedbugs, and fleas and to which resistance on the part of the mosquito had not yet been detected, viz. Benzene Hexachloride (B.H.C.) and a dilution of B.H.C. concentrate (gamma isomer) to about 6 per cent. B.H.C. was the insecticide that was being used towards the end of the year under report and at the beginning of the current year, and at the time I write B.H.C. wettable powder is what is being used in the perifocal work that we are now doing.

LARVAL INDEX

Premises with mosquito larvae per cent. of number visited		
Yearly average	1938–1942	2.1
Year	1943	3.3
	1944	5.4
	1945	6.9
	1946	7.3
	1947	5.8
	1948	4.4
	1949	4.4
	1950	4.6
	1951	4.5
	1952	3.8
	1953	4.8
	1954	1.5
	1955	0.6

INSPECTION OF EAVES GUTTERS, ETC., 1955

Number of inspections of premises	154,521
Number of inspections of eaves gutters	21,637
Number of occasions found in good order	19,295
Number of occasions found defective	2,342
Number of occasions found containing water only	1,413
Number of occasions found containing water and larvae	215
*Number of occasions mosquito larvae were found in tubs, antiformicas, tin cans, &c.	1,170
Yards cleared of receptacles	14,591

N.B.—*Occasions on which mosquito larvae were found by sanitary inspectors, during the course of 97,715 inspections of premises, are included in above figure.

Premises used for human habitation, Houses let in Lodgings, Common Lodging Houses

Very little in the way of relieving the acute housing shortage that has been such a marked feature of the state of the public health of the City for the past ten years, at least, was done during the year under report and no words of mine can describe the situation that has now developed and which is fraught with such adverse possibilities to the health and welfare of the City.

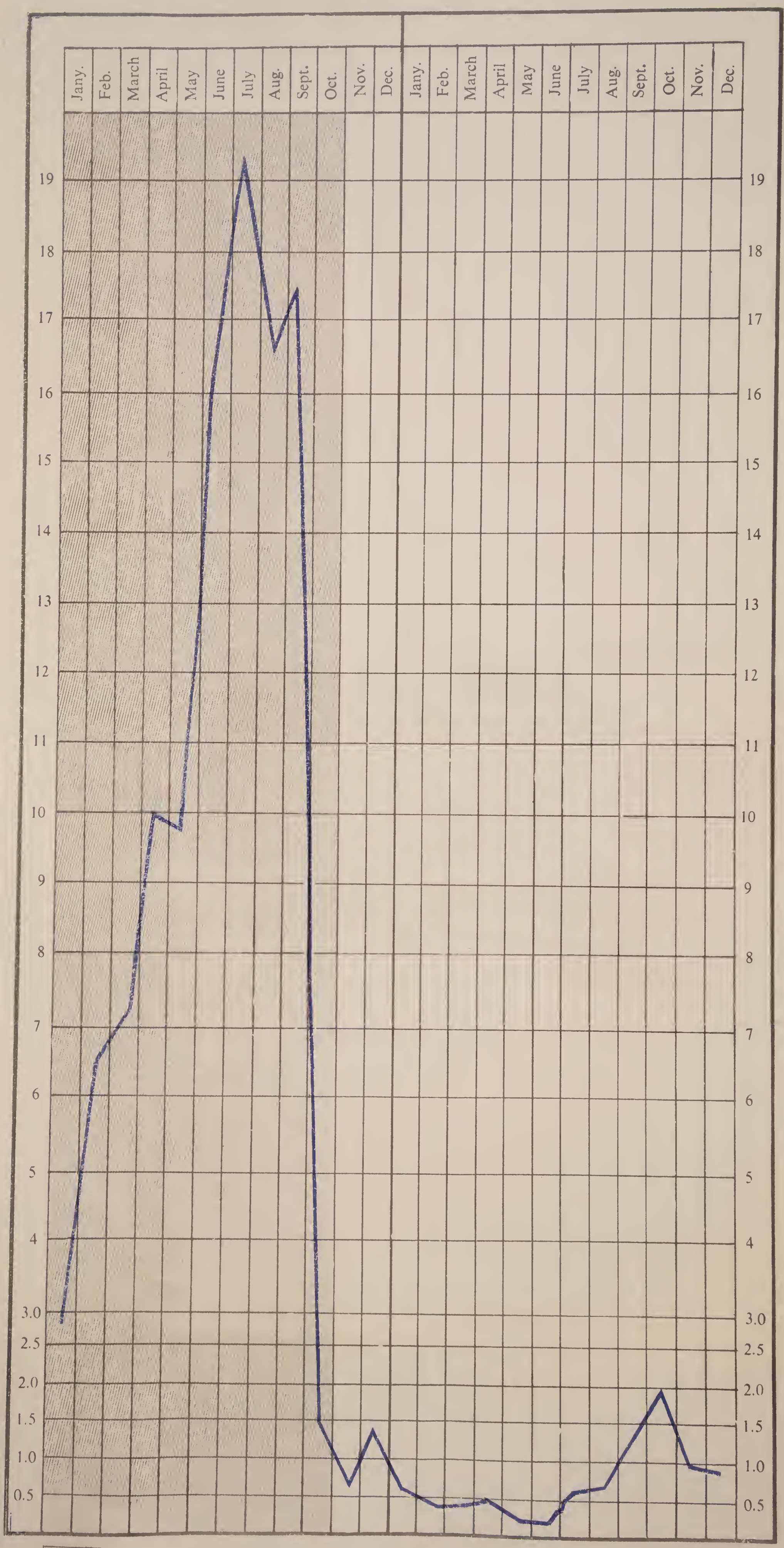
Very few dwelling houses have been erected within the limits of the City for the self-same reasons that I have detailed in previous reports: uneconomic rents due to rent restriction, the difficulty in finding vacant building lots, inability to get hold of premises to reconstruct them due to the acute lack of alternative accommodation, the high cost of labour and building material, &c., &c. In fact the position now is such that only a long term large size housing project can ever succeed in bringing much needed and long expected relief.

It is true that a Committee to investigate and report on the matter has been appointed by the Minister of Education and Social Services and that Committee has made interim and final recommendations but so far these recommendations have only partially been translated into action and the housing loans that are now being granted to deserving applicants to enable them either to recondition or reconstruct their houses serve only to scratch the surface of the problem.

In the meantime the discomfort, inconvenience, frustration and suffering that is being experienced by the inhabitants of the City generally and particularly by residents of those congested and overcrowded areas like the East Dry River and Belmont Sub-districts can be more easily

CHART A
Port-of-Spain

Monthly Aedes Index for 1954 and 1955



Before Residual House Spraying with D.D.T. Solution

After Residual House Spraying with D.D.T. Solution

imagined than described, and this Department is severely taxed to maintain a minimal standard of basic sanitation in the case of those dwelling houses that do exist but which are so old and dilapidated and indeed have got so much out of repair that only reconstruction can serve to abate the numerous and varied nuisances that they exhibit.

Landlords are loth, as can be readily understood, to repair old buildings that they are quite prepared to reconstruct and for which plans have already been approved, and it is only by recourse to the long, continuous, and sometimes unsatisfactory process of court proceedings that the simple and basic essential requirements that they are now being asked to provide, such as good and sound sanitary conveniences, proper bathrooms, the stoppage of leaks and the repairing of floors, the clearing of yards of refuse and rubbish, and the keeping of drains in good working order, are met.

The slow work of limited slum clearance in the declared slum clearance areas in the eastern section of the central part of the City continued at snail like pace due to limited funds during the year under report, and some repair and reconditioning of the existing 'Planning and Housing Commission' flats which have replaced former slum dwellings have taken place, but the accommodation provided is only a fraction of what is needed judging by the numbers of applications on the files of the Planning and Housing Commission and by the congestion and overcrowding of the Ajax Street building, that huge barrack that is owned and operated by the Commission and which serves as a decanting centre for tenants in the declared slum clearance areas who are displaced as a preliminary to reconstruction of their premises into blocks of flats.

Shanty Town

This settlement which is a blot on the landscape at the eastern entrance to the City and which comprises a conglomeration of "shanties" hastily improvised and poorly constructed without authority and in accordance with no approved plan and often without the basic essential requirements of sanitary conveniences for the collection and disposal of faecal matter, continues to grow in size until the number has now, at the time I write, increased to 96 shanties housing a population of 169 adults and 96 children at the south-western end of the Dump within the southern limit of the City.

In spite of numerous references to this area in previous annual and special reports, in spite of many visits paid to the site by politicians and officials, the position remains the same, viz., that no firm attempt has yet been made to solve this problem by finding alternative sites on which to accommodate the growing population that inhabits the area.

In fact the settlement here is of such a fixed nature now, and the residents of these shacks are so satisfied with the *status quo* that only legislation of a kind that will compel them to remove to other sites provided for them will ever be able to achieve the clearance of this section of the City and permit it to be put to proper and appropriate use.

For the inhabitants have grown accustomed to the surroundings, are satisfied with a site that provides shelter with no rent to pay, no rates or taxes, where they can rear pigs and allow them to roam all over the Dump in search of food, where they can accumulate bottles, old metal, tins, old wood gathered from the Dump, and where all kinds of illicit transactions and illegal trades can be carried on without let or hindrance.

The Public Health Department is worried about the general state of insanitation that exists here, and is in constant dread lest a case of infectious disease arising here may be the means whereby an epidemic may be lit up and engulf the City. With the improper disposal of faecal matter which often is scattered about indiscriminately, with refuse thrown about helter skelter in odd places about the area and with lack of a proper water supply and the complete absence of proper drainage, the Department is presented with a problem that taxes the knowledge and experience of its Sanitary Inspectors to the very utmost.

Nuisances of all kinds abound in Shanty Town and the various anti-pest units of the Department are constantly in action in the area in their efforts to attend to the numerous complaints of the residents and to ameliorate a situation which is potentially dangerous to the rest of the City.

I can conceive of no health problem within the limits of the City that is so urgent and pressing and whose solution will afford more welcome relief to inhabitants and officials alike.

VITAL STATISTICS OF THE DISTRICT

Comparative Summary of Vital Statistics

(Unless otherwise stated, rates are per 100,000 population)

	1921	1953	1954	1955
Area of City—acres (pastures and open spaces included)	1,793	2,550	2,550	2,550
Estimated population (mean)	61,386	111,150	114,150	117,000
Density of population (persons per acre)	34.2	44	45	46
Total live births	1,687	4,499	5,403	3,078
Birth rate	2,728	4,048	4,733	2,631
Still births registered	154	225	268	89
*Still birth rate	91.3	50.01	49.60	28.92
Total deaths	1,659	1,108	1,028	1,067
Death rate	2,683	997	901	903
Natural increase of population ...	28	3,391	4,375	2,011
Deaths under one year	287	157	150	138
*Infant mortality rate	170.12	34.90	27.76	44.83
*Maternal mortality rate	—	2.22	2.59	5.20
Death Rates :				
Notifiable infectious diseases	621	75	77	72
Pulmonary tuberculosis	249	18	19	12
Tuberculosis (other forms)	26	5	3	3
Enteric fever	125	3	3	1
Pneumonia (all forms)	197	47	51	56
Bronchitis	136	14	20	21
Diphtheria	2	1	1	1
Malaria	89	—	1	—
Syphilis	21	6	7	10
Diarrhoea and enteritis	191	51	32	38
Influenza	26	—	1	—
Ankylostomiasis	15	1	2	1
Bright's disease and nephritis ...	209	22	22	19
Diseases of the heart and blood vessels	265	269	230	221
Diseases of the nervous system including cerebral haemorrhage	170	94	133	144
Cancer and other malignant diseases ...	63	102	84	89

*Per 1,000 births.

Census population of City—April, 1946: 93,198.

Colony's Mean Population: 720,800.

Acreage and Population

The area of the City remains at 2,550 acres, such as it has been for the past eight years when the 168 acres in the Dock Site and Wrightson and Mucurapo Road areas were officially included within the limits of the City by the southern boundary of the City being defined as: "The sea wherever it is and wherever it is likely to be in the future".

Of these 2,550 acres 299 acres comprise the Queen's Park Savannah, the large open space in the North of the City wherein is situated the Queen's Park Turf Club, and which is used mainly as playing fields for the games of cricket, football, hockey, &c., &c.

The adjoining areas of Cascade, St. Ann's, Ellerslie Park and Maraval, St. James and Cocorite where already water is supplied by the City, whose sewerage system, where it exists, is connected with the City's sewer mains, and where a certain amount of health work is already being done by the City's Public Health Department fall naturally within the City and it cannot be long now before they are officially included within the limits of the City.

In fact at the time I write there is a resolution on paper, which awaits final adoption by the Council, seeking to achieve this self-same object.

The population of the City has been estimated at 117,000 of which the City Proper is estimated to contain 40,255 residents, the East Dry River Sub-district 25,969, Belmont 20,730, Woodbrook 14,847, St. James 13,738 and St. Clair 1,961.

It is clear, however, that these figures are tentative, and only a census will be able to furnish figures that can be considered reasonably accurate and on which the various rates and percentages which are an essential part of vital statistics are based. It is ten years since the last census was taken and another census of the resident population is due and should not be longer delayed. It has just been decided at a Conference of Statisticians in Barbados that the next census will take place in 1960.

It is proposed on the occasion of the next census to enumerate the population in the various wards of the City and with those figures it will be possible to base our vital statistics on the actual resident population of the five wards into which the City is divided.

At the moment the various Sub-districts of the City are rather arbitrarily defined and the estimated population figures do not by any means represent the actual resident population of these sub-districts.

CHART B
Port-of-Spain
Birth Rates and Death Rates per 100,000 Population 1920-1955

* Adjusted Rate (1955): City residents Births and Deaths only.

Birth and Birth Rates

The most important development under this heading is the fact that during the year under report we have been able for the first time to get accurate and detailed monthly returns of the births that occur in the maternity wards of the Colonial Hospital, and so with the actual names and addresses of the mothers we have been able to eliminate many births that were formerly labelled City births and refer them to the towns and villages to which they properly belong. The result of this is that a much lower birth rate for the City is recorded for 1955 which compares more favourably with the death rate, and the figure for the infant mortality rate, which is the number of deaths of infants under one year of age per thousand live births shows a rise.

The sudden drop of the dotted line on Chart B and the sudden rise in the dark leaded line of Chart D are thereby explained.

Deaths and Death Rates

The number of deaths registered during the year 1955 was 1,067 as compared with 1,028 in the year 1954, and correspondingly the death rate worked out at 903 per 100,000 as compared with 901 in 1954, an increase that is hardly significant in view of the fact that the estimated population showed a rise of 2,850 souls. As has been stated before, the death rate has been falling consistently and the birth rate rising consistently since the year 1943 but the steepness of the rise of the birth rate is corrected in this report, as has been fully explained in the section dealing with Births and Birth Rates.

The death rate of 903 per 100,000 is not a high death rate and reflects the consistent efforts of the various health departments and the general practitioner service of the Colony to achieve a higher standard of public health; the more efficient practice of curative medicine generally; more efficient and prompt hospital services, a greater degree of health consciousness on the part of the population, and better and more generous social services, but lower figures are being recorded in other countries in tropical and sub-tropical climes and there can be no resting on our oars or relaxation of effort to improve still further all the services devoted to the betterment of public and personal health.

Births 1955				Deaths 1955			
Males	Females	Both Sexes	Birth Rate per 100,000 population	Males	Females	Both Sexes	Death Rate per 100,000 population
1,532	1,546	3,078	2,631	536	531	1,067	903

Deaths in Sub-Districts of the City 1955

Sub-District	Mean Population	Deaths				Total Deaths Sub-Districts	Rate per 100,000 population
		Place of Occurrence					
		Home, &c.	Colonial Hospital	Royal Gaol	House of Refuge		
City Proper	40,255	133	93	14	—	240	596
St. Clair	1,961	17	1	—	—	18	918
East Dry River	25,969	99	126	—	—	225	866
Belmont	20,230	92	97	—	—	189	934
Woodbrook	14,847	58	22	—	—	80	539
St. James	13,738	87	45	—	183	315	2,293
Total	117,000	486	384	14	183	1,067	903

Age Distribution of Deaths 1955

Period	Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year	80	58	138	12.93
1– 5 years	11	16	27	2.53
6–10 do.	4	6	10	0.94
11–20 do.	12	5	17	1.59
21–30 do.	16	16	32	3.00
31–40 do.	25	23	48	4.50
41–50 do.	56	44	100	9.37
51–60 do.	81	72	153	14.34
Over 60 years	251	291	542	50.80
Total	536	531	1,067	—

Comparison of Deaths at different Age Periods, 1928-55

Period	Total Deaths at All Ages	Deaths under 1 Year		Deaths 1–5 Years		Deaths 56–60 Years		Deaths over 60 Years	
		No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths
Yearly Averages									
1928-32 ...	1,327	230	17.42	81	6.06	94	7.09	336	25.10
1933-37 ...	1,167	215	18.24	62	5.29	87	7.57	289	24.74
1938-42 ...	1,622	275	16.85	68	4.21	117	7.20	566	34.92
1943 ...	1,862	283	15.20	102	5.48	131	7.04	674	36.20
1944 ...	1,620	248	15.31	77	4.75	106	6.54	598	36.92
1945 ...	1,526	239	15.66	71	4.65	86	5.64	561	36.76
1946 ...	1,396	241	17.26	77	5.52	95	6.81	493	35.32
1947 ...	1,385	231	16.68	49	3.54	92	6.64	536	38.70
1948 ...	1,191	177	14.86	45	3.78	66	5.54	491	41.23
1949 ...	1,147	171	14.91	57	4.97	85	7.41	524	45.68
1950 ...	1,170	168	14.36	75	6.41	76	6.50	526	44.96
1951 ...	1,243	167	13.43	43	3.46	79	6.35	602	48.43
1952 ...	1,094	137	12.52	48	4.39	77	7.04	540	49.36
1953 ...	1,108	157	14.17	41	3.70	67	6.05	524	47.29
1954 ...	1,028	150	14.59	36	3.50	79	7.69	484	47.08
1955 ...	1,067	138	12.93	27	2.53	78	7.31	542	50.80

Causes of Deaths

Listed below is a statement which shows the number of deaths that were registered in the Urban Sanitary district during the year 1955 and the causes of death which were attributed to them.

The causes of death are classified according to the Intermediate List of the International Statistical Classification, i.e., 150 causes for tabulation of morbidity and mortality which was adopted in 1952 by the Health Department of Government for the Colony of Trinidad and Tobago.

It will be seen that 1,067 deaths were registered in the year under report as against 1,028 in the previous year, giving a death rate of 903 per 100,000 as against 901 per 100,000 in 1954. The increase in the number of deaths, 29, has not been due to any single cause but to a slight increase in numbers scattered throughout the list and when the increase in population is taken into account, from 114,150 to 117,000, can hardly be considered to bear any adverse significance. As has been recorded year after year, diseases of the heart and blood vessels claimed the largest number of victims, 259, and diseases of the nervous system including cerebral haemorrhage the next largest, 169, with cancer and other malignant diseases third, 104 deaths.

Notifiable infectious diseases were responsible for 84 deaths, of which pneumonia claimed 65 victims and 45 deaths were attributed to diarrhoea and enteritis.

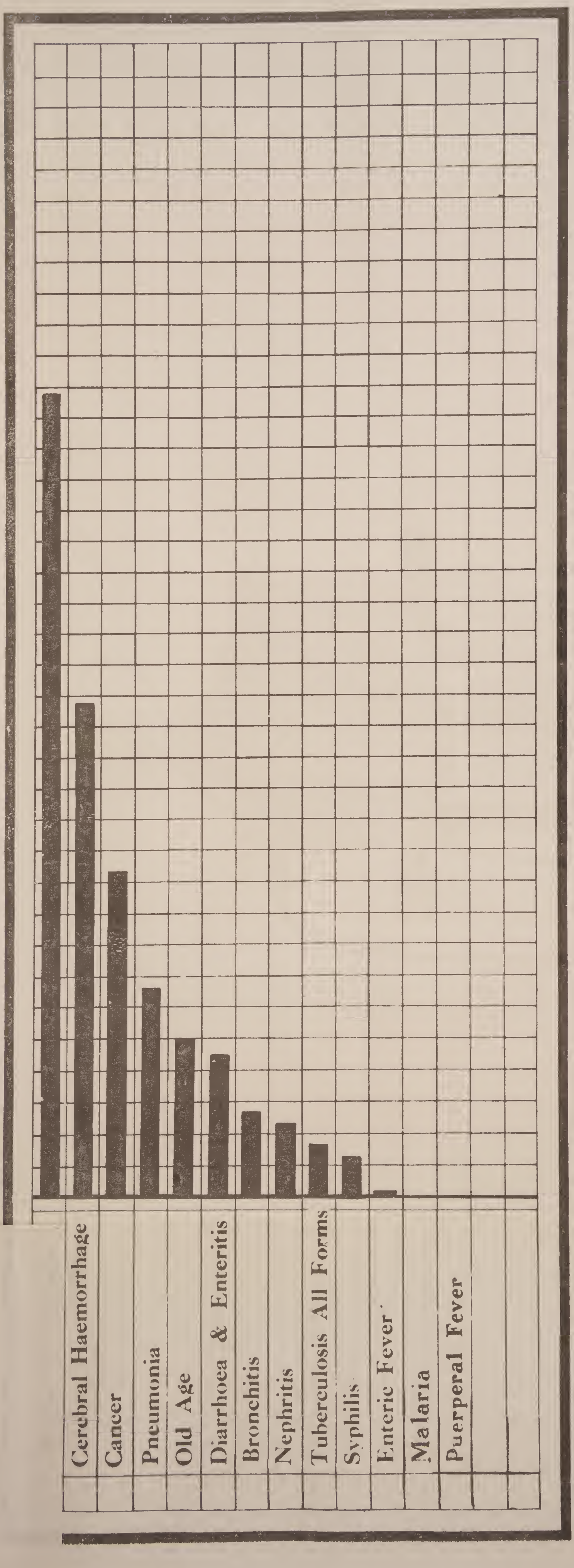
Causes of Deaths 1955—(International Classification)

Intermediate List No.	Cause Groups	Detailed List No.	Total
	I—Infective and Parasitic Diseases		
A 1	Tuberculosis of respiratory system	001–008	14
A 2	Tuberculosis of meninges and central nervous system	010	1
A 3	Tuberculsois of intestines, peritoneum and mesenteric glands ...	011	—
A 4	Tuberculosis of bones and joints	012	1
A 5	Tuberculosis, other forms :		
	02 All other forms	014, 016–019	1
A 6	Congenital Syphilis	020	1
A 8	Tabes Dorsalis	024	1
A 9	General paralysis of insane	025	1
A 10	All other syphilis	026–029	11
A 11	02 Other gonococcal infections	031–035	1
A 12	Typhoid fever	040	1
A 13	02 Other Salmonella infections	042	—
A 16	Dysentery, all forms :		
	01 Bacillary dysentery	045	—
	03 Other unspecified forms of dysentery	047, 048	—
A 20	Septicaemia and pyaemia	053	—
A 21	Diphtheria	055	1
A 22	Whooping cough	056	—
A 23	Meningococcal infections	057	—
A 25	Leprosy	060	—
A 26	Tetanus	061	4
A 29	Acute infectious Encephalitis	082	1
A 34	Infectious hepatitis	092	—
A 37	05 Other and unspecified forms of malaria	113, 116, 117	—
A 41	Ankylostomiasis	129	1
A 43	All other diseases classified as infective and parasitic :		
	01 Lymphogranuloma venereum	037	—
	02 Granuloma inguinale, venereal	038	—
	22 Herpes zoster	088	1
	25 All other diseases classified as infective and parasitic ...	132–134	—

Chart C
Port-of-Spain

Principal Individual

CAUSES OF DEATHS 1955



Causes of Death—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	II—Neoplasms		
A 44	Malignant neoplasm of buccal cavity and pharynx	140 148	1
A 45	Malignant neoplasm of oesophagus	150	2
A 46	Malignant neoplasm of stomach	151	17
A 47	Malignant neoplasm of intestine, except rectum	152, 153	13
A 48	Malignant neoplasm of rectum	154	4
A 49	Malignant neoplasm of larynx	161	1
A 50	Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	162, 163	2
A 51	Malignant neoplasm of breast	170	14
A 52	Malignant neoplasm of cervix uteri	171	7
A 53	Malignant neoplasm of other unspecified parts of uterus	172–174	13
A 54	Malignant neoplasm of prostate	177	2
A 55	Malignant neoplasm of skin	190–191	—
A 56	Malignant neoplasm of bone and connective tissue	196 197	4
A 57	Malignant neoplasm of all other and unspecified sites	155–160 175, 176 198, 199	23
A 58	Leukaemia and Aleukaemia	204	1
A 59	Lymphosarcoma and other neoplasms of lymphatic system ...	200–203 205	—
A 60	Benign neoplasms and neoplasms of unspecified nature	210–239	3
	III—Allergic, Endocrine System, Metabolic, and Nutritional Diseases		
A 62	Thyrotoxicosis with or without goitre	252	1
A 63	Diabetes mellitus	260	29
A 64	Avitaminosis and other deficiency states :		
	01 Beri beri	280	—
	05 Other deficiency states	283–286	2
	IV—Diseases of the Blood and Blood-Forming Organs		
A 65	Anaemias :		
	01 Pernicious and other hyperchromic anaemias	290	—
	03 Other specified and unspecified anaemias	292, 293	2
A 66	Allergic disorders, all other endocrine, metabolic and blood diseases :		
	01 Asthma	241	6
	02 All other allergic disorders, endocrine, metabolic and blood diseases	253	1
	V—Mental, Psychoneurotic and Personality Disorders		
A 67	Psychoses	300–309	5
A 68	Psychoneuroses and disorders of personality	310–324 326	1
	VI—Diseases of the Nervous System and Sensory Organs		
A 70	Vascular lesions affecting central nervous system	330–334	149
A 71	Nonmeningococcal meningitis	340	4
A 72	Multiple sclerosis	345	1
A 73	Epilepsy	353	2
A 77	02 Otitis media and mastoiditis	391–393	1
A 78	All other diseases of the nervous system and sense organs ...	341–344 350–352 354–357 360–369 395–398	12
	VII—Diseases of the Circulatory System		
A 79	Rheumatic fever	400–402	1
A 80	Chronic rheumatic heart disease	410–416	5
A 81	Arteriosclerotic and degenerative heart disease	420–422	163
A 82	Other diseases of the heart	430–434	23
A 83	Hypertension with heart disease	440–443	44
A 84	Hypertension without mention of heart	444–447	8
A 85	Diseases of arteries	450–456	14
A 86	Other diseases of the circulatory system	460–468	1
	VIII—Diseases of the Respiratory System		
A 88	Influenza	480–483	—
A 89	Lobar pneumonia	490	18
A 90	Broncho pneumonia	491	40
A 91	Primary atypical, other, and unspecified pneumonia	492, 493	7
A 92	Acute bronchitis	500	10
A 93	Bronchitis, chronic and unqualified	501, 502	15
A 95	Empyema and abscess of lung	518, 521	3
A 96	Pleurisy	519	5
A 97	02 All other respiratory diseases	511–517 520–522 524–527	7

Causes of Death—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	IX—Diseases of the Digestive System		
A 99	Ulcer of stomach	540	7
A100	Ulcer of duodenum	541	1
A101	Gastritis and duodenitis	543	1
A102	Appendicitis	550–553	2
A103	Intestinal obstruction and hernia	570	7
A104	Gastro-enteritis and colitis, except diarrhoea of the newborn :		
	01 Gastro-enteritis and colitis between 4 weeks and 2 years	571.0	33
	02 Gastro-enteritis and colitis, ages 2 years and over	571.1	12
	03 Chronic Enteritis and ulcerative colitis	572	1
A105	Cirrhosis of Liver	581	10
A106	01 Cholelithiasis	584	1
	02 Cholecystitis without mention of calculi	585	1
A107	Other diseases of digestive system	536–539 542–544 545 573–580 582–583 586–587	6
	X—Diseases of the Genito-Urinary System		
A108	Acute Nephritis	590	—
A109	Chronic and other unspecified nephritis	591–594	22
A110	Infections of kidneys	600	5
A111	Calculi of urinary system	602–604	—
A112	Hyperplasia of prostate	610	15
A114	03 All other diseases of the genito-urinary system	601–603 605–609 611, 612 614–617 622–623 635–637	9
	XI—Deliveries and Complications of Pregnancy, Childbirth, and the Puerperium		
A116	01 Puerperal eclampsia	685	1
	02 All other toxaemias of pregnancy and the puerperium	642, 652, 686	2
A117	Haemorrhage of pregnancy and childbirth :		
	01 Placenta praevia	643	—
	02 Haemorrhage of pregnancy	644, 670	2
A118	Abortion without mention of sepsis	650	3
A119	Abortion with sepsis	651	4
A120	All other complications of pregnancy and childbirth :		
	01 Ectopic pregnancy	645	2
	03 Delivery Complications	673–675	—
	04 Other complications of pregnancy	646, 648 649, 676 680, 683	2
	XII—Diseases of the Skin and Cellular Tissues		
A121	Infections of skin and subcutaneous tissue	690–698	4
	XIII—Diseases of the Bones and Organs of Movement		
A122	Arthritis and spondylitis	720–725	3
A123	Rheumatism unspecified	726–727	1
A126	All other diseases of the skin and musculoskeletal system :		
	01 Chronic ulcer of skin	715	—
	02 All other diseases of skin	716	2
	03 All other diseases of musculoskeletal system	731–736 738 744	1
	XIV—Congenital Malformations		
A127	Spina bifida and meningocele	751	1
A128	Congenital malformation of Circulatory System	754	1
A129	All other congenital malformations	750–752 753, 755 759	2
	XV—Certain Diseases of Early Infancy		
A130	Birth Injuries	760–761	5
A131	Post-natal asphyxia and atelectasis	762	18
A132	Infections of the newborn :		
	01 Diarrhoea of newborn (under 4 weeks)	764	—
	03 Sepsis of newborn	767, 768	1
	04 Other infections of newborn	763–766	—
A133	Haemolytic disease of newborn	770	1
A134	All other defined diseases of early infancy :		
	02 Haemorrhagic disease of newborn	771	1
	03 Nutritional maladjustment	772	7
A135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	773, 776	40
	XVI—Symptoms, Senility and Ill-defined Conditions		
A136	Senility without mention of psychosis	794	50
A137	03 Certain symptoms referable to nervous system and special senses	780	—
	04 Other symptoms referable to nervous system	781	1
	05 Symptoms referable to cardio-vascular and lymphatic system	782	3
	06 Symptoms referable to respiratory system	783	—
	08 Symptoms referable to abdomen and lower gastro-intestinal system	785	3
	12 Nervousness and debility	790	—
	14 Uraemia unqualified	792	3
	15 Ill-defined and unknown causes of mortality	795	—
	16 Other general symptoms	788.1–788.9	1

Causes of Death 1954—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	"E" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (External Cause)		
AE138	Motor Vehicles Accident	E810–E825	9
AE140	Accidental poisoning	E870–E985	—
AE141	Accidental falls	E900–E904	7
AE142	Accident caused by machinery	E912	—
AE146	Accidental drowning...	E929	2
AE147	02 Forcign body entering other orifice	E928	—
	05 All other accidental causes...	E910–E911	—
AE148	Suicide, self-inflicted injury	E970–E979	2
AE149	Homicide and Judicial execution	E980–E985	16
	"N" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (Nature of Injury)		
AN138	Fracture of skull	N800–N804	—
AN139	Fracture of spine and trunk	N805–N809	—
AN140	Fracture of limbs	N810–N829	1
AN143	Head injury (excluding fracture)	N850–N856	—
AN144	Internal injury of chest, abdomen and pelvis	N860–N869	—
AN145	Laceration and open wounds	N870–N908	—
AN148	Burns	N940–N949	—
AN149	Effects of poisons	N960–N979	2
AN150	All other and unspecified effects of external causes	N950–N959 N980–N999	2
	Grand Total		1,067

Infant Mortality

The most significant fact that emerges from a consideration of the infant mortality that occurred in the year under report is that though the number of infants under one year who died in the year 1955, viz: 138, is the second smallest that has occurred in the Urban Sanitary District of the City of Port-of-Spain since 1917 when the Local Authority was established, the only exception being the year 1952 when 137 were recorded, yet the infant mortality rate, i.e., the number of deaths of infants under one year per 1,000 live births is the highest that has been recorded since 1948.

This is not due to any untoward circumstance or to any deterioration in standards but it is simply a question of better and more accurate statistics due to the elimination of facts and figures that really do not concern the City at all. Hitherto, due to the fact that it was not possible to obtain a detailed statement giving names and address of all the births that occurred in the Maternity Wards of the Colonial Hospital, Port-of-Spain, all births were lumped together in the returns that reached the Public Health Department and it was impossible to separate births that rightly belonged to the City, i.e., the births of infants of the actual residents of the City, from those that did not, i.e., births of infants to mothers who lived outside the limits of the City and who were admitted to the Maternity Wards of the Colonial Hospital, Port-of-Spain for the specific purpose of being confined there.

But in 1955 an arrangement was made with the Medical Superintendent whereby he would supply in full the data required and as a result it has been possible to take into consideration only City births when the infant mortality rate was being calculated.

With a lower figure for births, viz: 3,078, and the number of deaths 138, the infant mortality rate worked out at 44.83.

It is important to bear in mind the fact that ever since the Local Authority was established in 1917 returns from the several District Registrars gave the names and addresses of all births and deaths that occurred in the City and the Colonial Hospital returns gave the names and addresses of all deaths that occurred in the Hospital. The figure representing the number of deaths, therefore, has always been that for City deaths only.

But even so the infant mortality figure of 44.83 cannot be considered a high rate and reflects the continued successful efforts of the Health Department of Government and the Child Welfare League directed to maternity and child welfare and betterment.

Whilst much has been achieved, much remains to be done and no stone should be left unturned to ensure that all infants and toddlers come early under the attention and care of the authorities so that preventive measures can be applied at the earliest possible moment and at a time when they can be most effective.

If the mother cannot bring the infant and child to the Clinic, then the Clinic must be brought to the infant and child in their homes, wherever that happens to be, and the work of the Clinic carried out there.

For this, of course, more funds are needed, more health visitors and more voluntary workers particularly.

In the meantime the local authorities should give advice and practical help to this particular aspect of the public health and every effort made to improve basic sanitation and environmental hygiene with a view to ameliorating the acute housing situation, and to raise the standard and efficiency of the social services generally.

Births and Deaths of Infants under 1 year, 1917-55

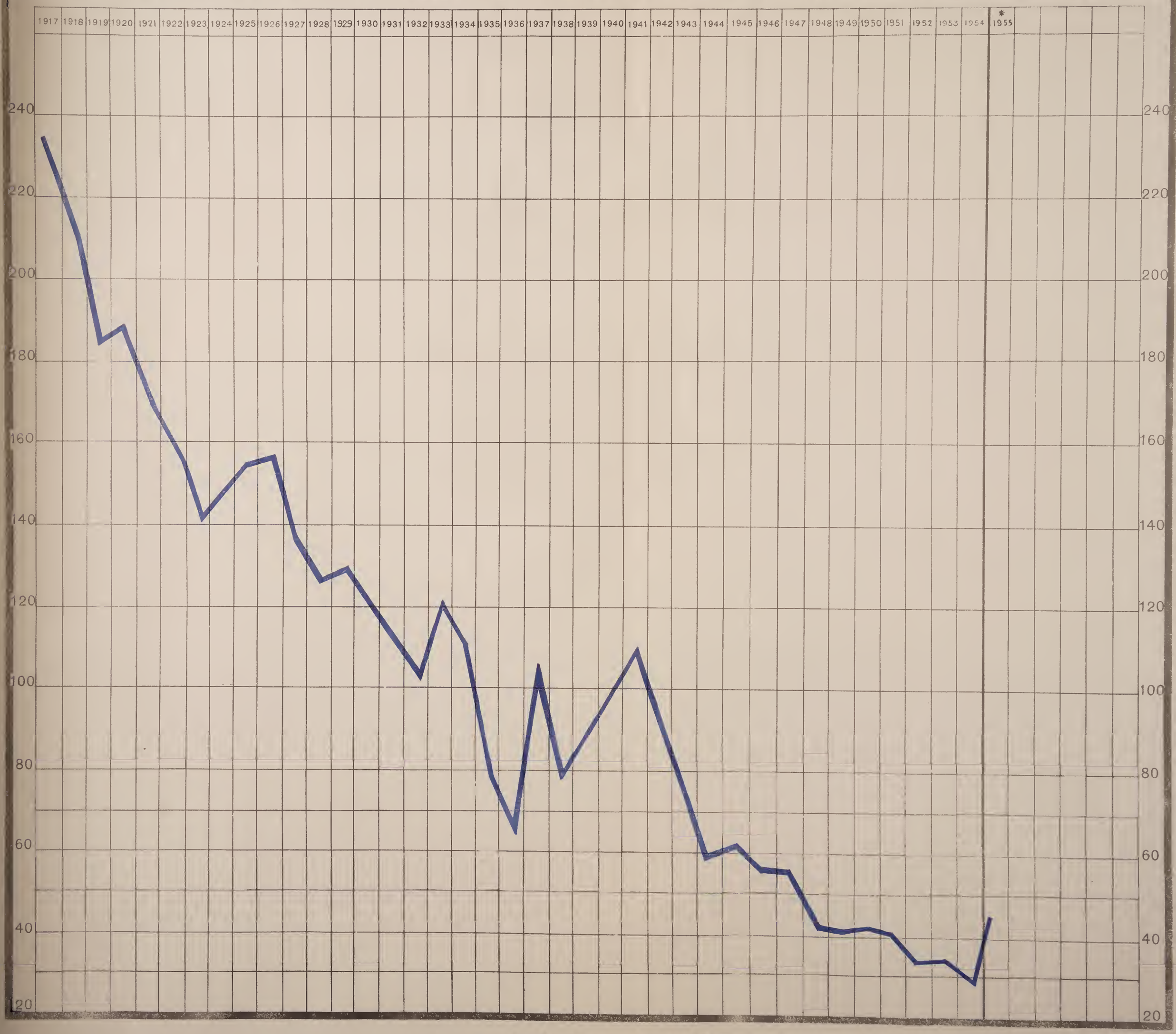
Period	No. of Births	No. of Deaths under 1 year	Infant Mortality Rate
Year 1917	1,770	412	232.77
Yearly Averages:			
1918–22	1,700	310	182.94
1923–27	1,862	274	146.96
1928–32	1,925	230	119.13
1933–37	2,248	215	96.05
1938–42	2,913	275	93.84
1943–47	4,026	248	61.94
Average 1918–47	2,446	259	116.94
1948	4,053	177	43.67
1949	4,037	171	42.36
1950	3,905	168	43.02
1951	3,982	167	41.94
1952	4,115	137	33.29
1953	4,499	157	34.90
1954	5,403	150	27.76
1955	3,078	138	44.83

Causes of Deaths under 1 year, 1955

Causes of Deaths	Neo-Natal Deaths under 1 month	Deaths 1 month and under 1 year	Total	Percentage of Total infant Mortality
Ante-Natal Causes:				
Prematurity	33	2	35	
Marasmus	1	1	2	
Malnutrition	—	7	7	
Congenital Abnormalities	4	—	4	
Congenital Debility	1	—	1	
Congenital Heart Disease	—	1	1	
Anaemia	—	1	1	
Total Ante-Natal ...	39	12	51	36.96
Intra-Natal Causes				
Haemorrhage	4	—	4	
Bleeding Cord	2	—	2	
Respiratory Obstruction (Cesarean)	1	—	1	
Total Ante-Natal ...	7	—	7	5.07
Post-Natal Causes:				
Asphyxia and Atelectasis	18	—	18	
Pneumonia	3	11	14	
Diarrhoea and Enteritis	5	25	30	
Bronchitis	2	4	6	
Icterus Neonatorum	3	—	3	
Pleurisy	—	1	1	
Tuberculosis	—	1	1	
Pulmonary Congestion	2	1	3	
Other Post-Natal Causes	3	1	4	
Total Post-Natal ...	36	44	80	57.97
GRAND TOTAL	82	56	*138	

*M. 80; F. 58.

CHART D
Port-of-Spain
Infant Mortality Rates per 1,000 Live Births 1917-1955



* Adjusted Rate (1955): City residents Births and Deaths only

Duration of Life of Infants dying under one year of Age, 1955

Duration of Life	No. of Infants	Percentage of total deaths under 1 year	Corresponding percentage 1954
Under 1 day	14	10.14	14.00
1 day and under 2 weeks	55	39.86	32.67
2 weeks and under one month ...	13	9.42	9.33
Total under 1 month ...	82	59.42	56.00
1 month to 3 months...	21	15.22	13.33
Over 3 to 5 months	7	5.07	10.00
Over 5 to 7 months	11	7.97	10.67
Over 7 to 9 months	13	9.42	4.67
Over 9 to 11 months	4	2.90	5.33
Over 11 and under 1 year	—	—	—
TOTAL	138	—	—

Neo-Natal Mortality (Deaths under 1 month) 1930-1955)

Period	No. of Deaths under 1 month	Percentage of total deaths under 1 year	Neo-Natal Mortality Rate per 1,000 Births
Yearly Average: 1930–34	90.6	38.60	44.03
Year 1935	91	50.28	39.24
1936	61	40.94	26.58
1937	110	46.41	48.39
1938	117	57.35	45.16
1939	122	50.41	44.33
Average 1935–39	100.2	49.08	40.74
Year 1940	132	45.36	44.94
1941	137	43.63	47.44
1942	134	41.62	39.42
1943	134	47.35	35.72
1944	117	47.18	28.12
1945	126	52.72	31.72
1946	136	56.43	32.91
1947	133	57.58	32.20
1948	76	42.94	18.75
1949	82	47.96	20.31
1950	82	48.82	21.00
1951	77	46.11	19.34
1952	60	43.79	14.58
1953	84	53.51	18.67
1954	84	56.00	15.55
1955	82	59.42	26.64

Still Births

The smallest number of still births ever recorded in the annals of the history of the Local Sanitary Authority, viz: 89, was registered in the year under report and with the number of live births, 3,078, the still birth rate worked out at 28.92, the lowest still birth rate recorded ever since 1917 when the Local Authority was established by the Public Health Ordinance, Ch. 12. No. 4.

As has been stated earlier on in this report, we have been able for the first time to get the names and addresses of all mothers who have been confined in the Maternity Wards of the Colonial Hospital, Port-of-Spain, and as a result we have been able to eliminate still births that do not belong to the City, and refer them to the proper urban and rural areas outside the City where the parents actually resided six months before seeking admission to the Colonial Hospital, Port-of-Spain, for the purpose of giving birth to their babies.

This in large measure explains the sudden drop, so to speak, in the number of still births registered and the low rate of still birth mortality that is here recorded.

The causes of the death of the infant in the mother's womb are not all quite clear but it is fairly certain that they are intimately bound up with those injuries and diseases of pregnancy and confinement that have such an adverse effect on mother and child.

Skilled and prompt midwifery must be made available to all mothers who need it and chronic system diseases like syphilis, malaria, diabetes, chronic kidney disease and tuberculosis which are well known causes of disease in parents, and when they are active during the ante-natal and intra-natal periods can be responsible for the death of the infant in the mother's womb, treated and if possible eliminated.

Other causes are obscure and not well understood and much more research by way of post-mortem examination and by experiment is necessary if we are to possess the accurate knowledge that is needed to lower this mortality which takes such a large toll of infant life in the mother's womb.

Still Births, 1955

Year	Total Still Births	Rate per 1,000 Live Births
1955	89	28.92
1954	268	49.60
1953	225	50.01
1952	207	50.30
1951	193	48.47
1950	165	42.25
1949	244	60.44
1948	223	55.02
1947	220	53.49
1946	225	54.44
1945	224	56.39
1944	265	63.69
1943	230	61.32
1942	257	75.61
1941	211	73.06
1940	214	72.86
1939	190	69.04
1938	171	66.00

Maternal Mortality

The most important development that has taken place in the year under report may be stated to relate to the statistical figure that represents the maternal mortality rate.

By reason of the fact previously referred to that a much more accurate figure for the number of births that have taken place within the limits of the City is now available, it has been possible to arrive at a figure for the maternal mortality rate that is more reliable.

Sixteen maternal deaths occurred in the year under report and with the number of births, 3,078, the maternal mortality rate worked out to be 5.20 per 1,000 live births.

Sixteen maternal deaths, i.e., the death of 16 women during pregnancy or childbirth, are a large number of deaths to occur during this period, and represent in fact the largest number of such deaths that has been registered during the past ten years.

Of these, 13 represent deaths from ectopic gestation, ruptured uterus, toxaemia of pregnancy, and septic abortion. The majority of these causes are preventible, and it means that there still remain numbers of women in pregnancy and childbirth who still do not get the benefit of proper, prompt and skilled ante-natal and intra-natal care.

It is in this direction that our efforts should be specifically concentrated and those mothers must be sorted out and made to realise that the accidents and diseases of pregnancy and childbirth are all capable of being eliminated, if only early resort were had to the prompt and skilled ante-natal and intra-natal care that is now available.

Causes of Maternal Deaths, 1955

Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and upwards	Total All Ages	Rate per 1,000 births	
						1955	Average 1950–54
Puerperal Sepsis	—	—	—	—	—	—	0.09
Eclampsia	—	—	1	—	1	0.33	0.27
Haemorrhage	—	—	—	2	2	0.65	0.34
Pernicious Vomiting	—	—	—	—	—	—	—
*Other Causes	1	4	6	2	13	4.22	1.57
TOTAL	1	4	7	4	16	5.20	2.27

*Other Causes include Ectopic Gestation, Ruptured Uterus, Septic Abortion, Toxaemia of Pregnancy.

The Pre-School Child

The health and welfare of the child during the pre-school period of the first to the fifth year is, by comparison with the care and attention given to the infant during the first year of life, considerably neglected. And just a little reflection will bring home even to the most casual observer the great importance to the child and to the State of this formative period of the child's life during which so much that happens in the way of disease and accident can be prevented.

It is a cause for great pity and profound regret that when a child appears in school for the first time at the age of five, it is discovered that permanent defects of sight and hearing and diseases of bone and muscle have already played havoc with the earning capacity of the child and have already made him a burden on the resources of the State.

More health visitors to seek out these children in their homes, more crèches and day nurseries where they can be supervised, cared for and given additional nutrition and medical attention if necessary, and where they can be left during the day whilst their parents go out to work, are an urgent necessity, and more funds, in addition to the skimmed milk which Government and the United Nations International Emergency Fund have provided, should be made available for the purpose.

Causes of Death at Ages 1-5—1955

Groups	Group Total	Percentage of Total Mortality at ages 1–5
Diesases, &c., attributable to Ante-Natal Causes: Marasmus 1; Syphilis 1	2	7.41
Communicable Diseases: Diphtheria 1; Enteric Fever 1; Pneumonia 10; Tuberculosis 2 ...	14	51.85
Dieseases of the Nervous System: Encephalitis 1; Meningitis 1	2	7.41
Diseases of the Respiratory System: Bronchitis 3	3	11.11
Diseases of the Digestive System: Gastro-Enteritis 2; Intestinal Obstruction 1	3	11.11
Other Causes: Embryonic Carcinoma of Right Kidney 1; Fractured Skull 1; Kerosene Poisioning 1	3	11.11
	27*	—

*M—11; F—16.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

Notifiable Infectious Diseases

In so far as notifiable infectious diseases are concerned the year 1955 can be stated to be on the whole quite a satisfactory year.

No new infectious disease was added to the list of notifiable infectious diseases and these latter still remain 20 in number: diphtheria, membranous croup, the enteric fevers, paratyphoid A and paratyphoid B, pulmonary tuberculosis, tuberculosis (other forms), pneumonia, ophthalmia neonatorum, chicken pox, encephalitis lethargica, cerebro-spinal fever, acute anterior poliomyelitis (infantile paralysis), acute ascending myelitis and puerperal fever, in addition to the dangerous infectious diseases, viz: plague, cholera, yellow fever, small pox (including alastrim), typhus fever, typhoid fever and anthrax. The latter two, i.e., typhoid fever and anthrax, were proclaimed dangerous infectious diseases in 1937 and in 1938 respectively (*Royal Gazette* 30th July, 1937 and *Royal Gazette* 2nd June, 1938).

The purpose underlying the compulsory notification of these diseases, viz: to give to public health authorities the opportunity at the earliest possible moment of getting those cases isolated and to apply well known and fully understood measures of prevention designed to limit their spread and diminish their incidence, is well known and practitioners do notify these cases promptly and on suspicion, as the law states, with a few notable exceptions who have unfortunately on occasions to be reminded of their statutory duty. It is a pity, however, that more use is not made of the telephone when these cases are seen by the practitioner, and it is a pity that certain diseases like pneumonia, pulmonary tuberculosis, are notified only when a fatal outcome appears to be inevitable.

Again every attempt should be made to get cases of these diseases removed to Hospital where they can be efficiently isolated and properly supervised and where a possible error in diagnosis can, with the greater opportunity afforded to observe and investigate the case, be corrected and the statistics appropriately amended.

Three hundred and seventeen cases of infectious diseases were notified and 84 deaths certified to notifiable infectious diseases in the year under report. These figures are the lowest but one recorded since the establishment of the Local Sanitary Authority in January, 1917, the lower figure of 301 notifications and 83 deaths having been recorded in the year 1953, though the rate of 271 for 100,000 worked out to be the same in 1953 and 1955 for reasons that are obvious: viz. the increase of population in the latter year.

As compared with the previous year 1954, no epidemics occurred and the number of cases of acute poliomyelitis (infantile paralysis) notified were only 2.

The returns showed a general all round decrease not only in notifications but also in deaths, which latter can be considered much more accurate and far more dependable, with the solitary exception of pneumonia of which 65 deaths were registered as compared with 58 in the year 1954.

Notifications of pulmonary tuberculosis declined from 137 in 1954 to 120 and deaths from 22 to 14, and notifications of chicken pox from 133 in 1954 to 113 in 1955.

Thirteen cases of typhoid fever with one death were recorded in the year under report as compared with 15 notifications and 3 deaths in the previous year.

Infectious Diseases—Notifications and Deaths—1945-1955

Infectious Diseases	Cases Notified				Deaths			
	Average 1945–49	Average 1950–54	1954	1955	Average 1945–49	Average 1950-54	1954	1955
Diphtheria	17.0	28.8	26	20	2.4	1.4	1	1
Membranous Croup ...	—	0.2	1	—	—	—	—	—
Typhoid or Enteric Fever ...	47.6	25.8	15	13	7.0	4.4	3	1
Plague	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—
Small Pox	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	192.0	135.2	137	120	128.2	30.4	22	14
Tuberculosis (other forms) ...	10.6	4.6	6	1	10.8	8.6	4	3
Pneumonia (all forms) ...	83.0	61.4	48	39	65.8	63.2	58	65
Ophthalmia Neonatorum ...	8.0	5.8	3	7	—	—	—	—
Chicken Pox	96.6	93.8	133	113	—	—	—	—
Encephalitis Lethargica ...	—	0.4	1	—	0.8	—	—	—
Acute Poliomyelitis ...	1.8	7.6	35	2	0.8	—	—	—
Cerebro-spinal Fever ...	1.6	0.4	—	1	—	—	—	—
Typhus fever	—	—	—	—	—	—	—	—
Acute Ascending Myelitis ...	—	—	—	—	—	—	—	—
Puerperal Fever	7.4	—	—	1	0.2	1.0	—	—
Anthrax	—	—	—	—	—	—	—	—
Grand Total ...	465.6	364.0	405	317	216.0	109.0	88	84
Rate per 100,000 population...	354	334	355	271	216	100	77	72

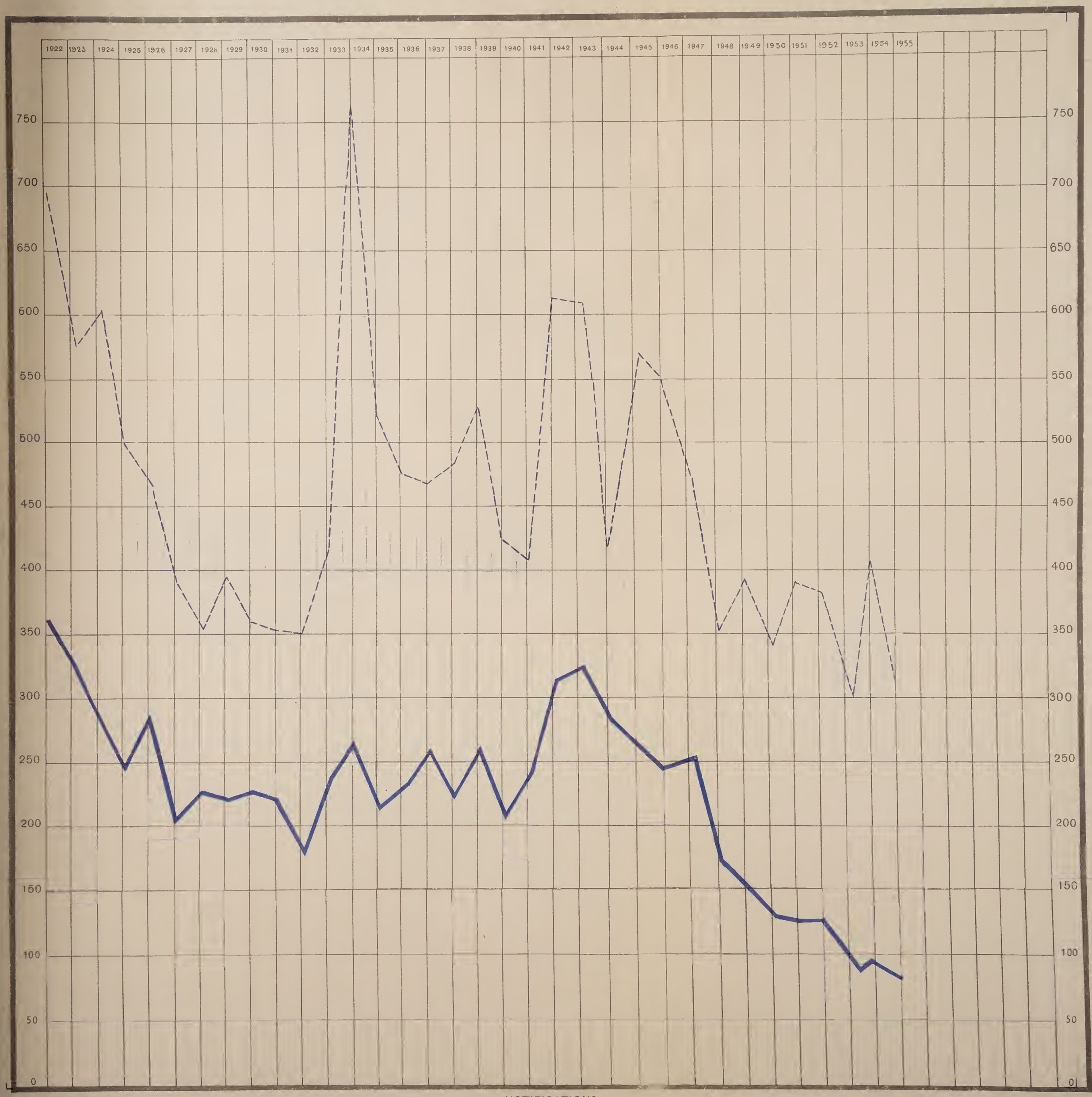
Distribution of Cases and Deaths from Notifiable Infectious Diseases, 1955

Diseases	City Proper		St. Clair		East Dry River		Belmont		Woodbrook		St. James	
	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths
Diphtheria	7	—	—	—	4	—	5	1	2	—	2	—
Membranous Croup ...	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid or Enteric Fever ...	4	—	—	—	5	—	1	1	1	—	2	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Small Pox (Alastrim) ...	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	40	6	1	—	30	1	23	4	11	2	15	1
Tuberculosis (other forms) ...	1	1	—	—	—	2	—	—	—	—	—	—
Pneumonia (all forms) ...	10	21	—	—	9	19	6	9	2	3	12	13
Ophthalmia Neonatorum ...	2	—	—	—	1	—	—	—	20	—	16	—
Chicken Pox	25	—	—	—	29	—	23	—	—	—	—	—
Encephalitis Lethargica ...	—	—	—	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis ...	—	—	—	—	1	—	—	—	1	—	—	—
Cerebro-spinal Fever ...	1	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—
Acute Ascending Myelitis ...	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	1	—	—	—	—	—	—	—	—	—	—	—
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total ...	91	28	1	—	79	22	59	15	37	5	50	14
Rate per 100,000 population in each Sub-district ...	226	70	51	—	304	85	292	74	249	34	364	102

Notifiable Infectious Diseases—Home and Hospital Deaths, 1955

Diseases	Deaths			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1954
	At Home	At Hospital	Total		
Diphtheria	—	1	1	100.00	100.00
Enteric Fever	—	1	1	100.00	100.00
Pulmonary Tuberculosis	9	5	14	35.56	31.82
Tuberculosis (other forms)	—	3	3	100.00	75.00
Pneumonia (all forms)	29	36	65	55.38	51.72
Puerperal Fever	—	—	—	—	—
Cerebro-spinal Fever	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—
Encephalitis Lethargica	—	—	—	—	—
Total	38	46	84	57.14	50.00

CHART E
Port-of-Spain
Infectious Diseases – Notifications and Deaths 1922-1955



Premises, &c., Disinfected for Infectious Diseases and Vermin—1955

Diseases	Premises sprayed
Pneumonia	25
Tuberculosis	105
Enteric Fever	13
Diphtheria	18
Puerperal Fever	1
Ophthalmia Neonatorum	6
Chicken Pox	88
Poliomyelitis	2
Cerebro-Spinal Fever	1
Leprosy	1
TOTAL	260
Vermin	161

13,950 Cesspits were sprayed with a mixture of crude and distillate oils (free of charge) as a routine measure of prevention against spread of the bowel-filth diseases.

TUBERCULOSIS

Pulmonary Tuberculosis

The most important development during the year under report, in so far as Tuberculosis was concerned, has been the long awaited building of the new headquarters of the Association for the Prevention of Tuberculosis at Wrightson Road, the foundation for which was laid in the last quarter of the year under report.

The old headquarters at the corner of St. Vincent Street and Knox Street, having been purchased by Government for the purpose of holding additional Courts, the Association was given a long term lease of a parcel of land at a pepper-corn rental to the east of the Caribbean Medical Centre and between the latter and the grounds of the Licensing Office.

With a new site and with funds available from the sale of the old headquarters, and with a very generous grant from Government, it was possible to order a steelframe Arkon structure from the United Kingdom and to commence the erection of the new headquarters late in the year under report, and at the end of the year the work was nearing completion.

For the rest the work of the Tuberculosis Division of the Health Department of Government on the curative side, the work of the Public Health Department on the preventive side, and the work of the Association on the welfare and rehabilitation side continued unabated during the year 1955 with results that can be considered not unsatisfactory.

The Chest Clinic at the Caribbean Medical Centre, Woodbrook, the Masson Hospital at St. James, and the Sanatorium at Caura, continued their work of diagnosis and treatment of cases that are reported by medical practitioners or who seek medical care and treatment on their own with very gratifying results. All beds at the Masson Hospital are now filled and so are those at the Caura Sanatorium and the waiting list at the latter institution particularly has been considerably shortened.

The Public Health Department continued its wonted rôle in this disease by the receipt of notifications from practitioners and by passing on copies of these notifications to the proper authorities, by advising and urging contacts of such notified cases to attend the Chest Clinic at the Caribbean Medical Centre and so make sure that they have not fallen victims to the disease, and if they do, to get medical advice and treatment at the earliest possible stage, by the disinfection of premises and fomites and most important of all by devoting special care and attention to the general sanitation of the premises where these cases of tuberculosis have occurred and by serving notices, &c., to put the actual dwelling in good sanitary condition if and when that is possible.

Seeing, however, that the majority of these cases occur in slum areas where schemes for clearance are an urgent necessity, it is clear that very little effective work has been done and can be done in this direction until more funds are placed at the disposal of the Planning and Housing Commission to continue their work of slum clearance and to get rid of the large numbers of congested and overcrowded premises that now clutter these areas.

The Association for the Prevention of Tuberculosis continued to dispense welfare and after-care to those patients who have been discharged from the Hospital or Sanatorium and who are finding it difficult to make ends meet and are even unable to get proper care and attention.

Those who are unable to revert to their former employment receive training in other forms of employment suitable to their state of health, and when fully trained are given work to do from which they can earn at least a part of their livelihood. Every effort to find these cured cases employment when discharged from the Hospital or Sanatorium is made by members of the Association but it

is a hard uphill fight to make employers realise that these patients are cured and by no means constitute a source of infection to fellow employees, and so the most fruitful line at the moment for those discharged patients is to engage in some form of self employment.

The Association devotes a week every year to lectures and demonstrations and to advertisement and propaganda of its aims and objects, and it is hoped that the public conscience will be so stirred that these ex-patients will be given the chance they deserve and the opportunity to be happy, contented, and productive citizens once more.

During the year under report 120 cases of pulmonary tuberculosis were notified to the Department and 14 deaths registered, the second lowest number of notifications and the lowest number of deaths recorded since the establishment of the Local Authority.

Pulmonary Tuberculosis—Notifications and Deaths—1918-55

Period	Notifications	Deaths	Death Rate per 100,000 population
Year 1918	299	233	343
Yearly Averages:			
1919–23	207	173.2	265
1924–28	167.6	154.6	238
1929–33	133.6	12.9	185
1934–38	147.4	124.6	162
Average 1919–38	163.9	145.4	213
Year 1939	175	167	185
1940	155	118	128
1941	113	124	127
1942	157	136	137
1943	182	148	145
1944	186	158	152
1945	206	140	141
1946	173	158	157
1947	222	167	174
1948	170	108	109
1949	189	58	57
1950	127	55	53
1951	143	27	25
1952	147	28	26
1953	122	20	18
1954	137	22	19
1955	120	14	12

Non-Pulmonary Tuberculosis

This is a form of Tuberculosis to which more attention should be paid seeing that preventive measures that are well understood and are effective in their application are available for preventing the spread of this disease. It is true that non-pulmonary tuberculosis is not always diagnosed antemortem and quite often it is only on the post-mortem table that the nature of the disease is apparent; but seeing that cattle and nowadays goats are the usual sources whereby the disease is transmitted to man, a proper system of meat inspection, regular and more universal tuberculin testing of cattle and goats, and the efficient pasteurisation of milk, ought to be successful in preventing the bovine form of tubercle bacillus from gaining access to the alimentary tract of man.

No legislation, however, exists relating to the pasteurisation of milk and such pasteurisation as is done is purely on a voluntary basis and no system of check can be compulsorily insisted upon or penalty imposed for improper and inefficient pasteurisation.

One case of tuberculosis of the spine and bones was notified in the year under report but 3 deaths were certified to the disease, almost certainly the result of post-mortem examination.

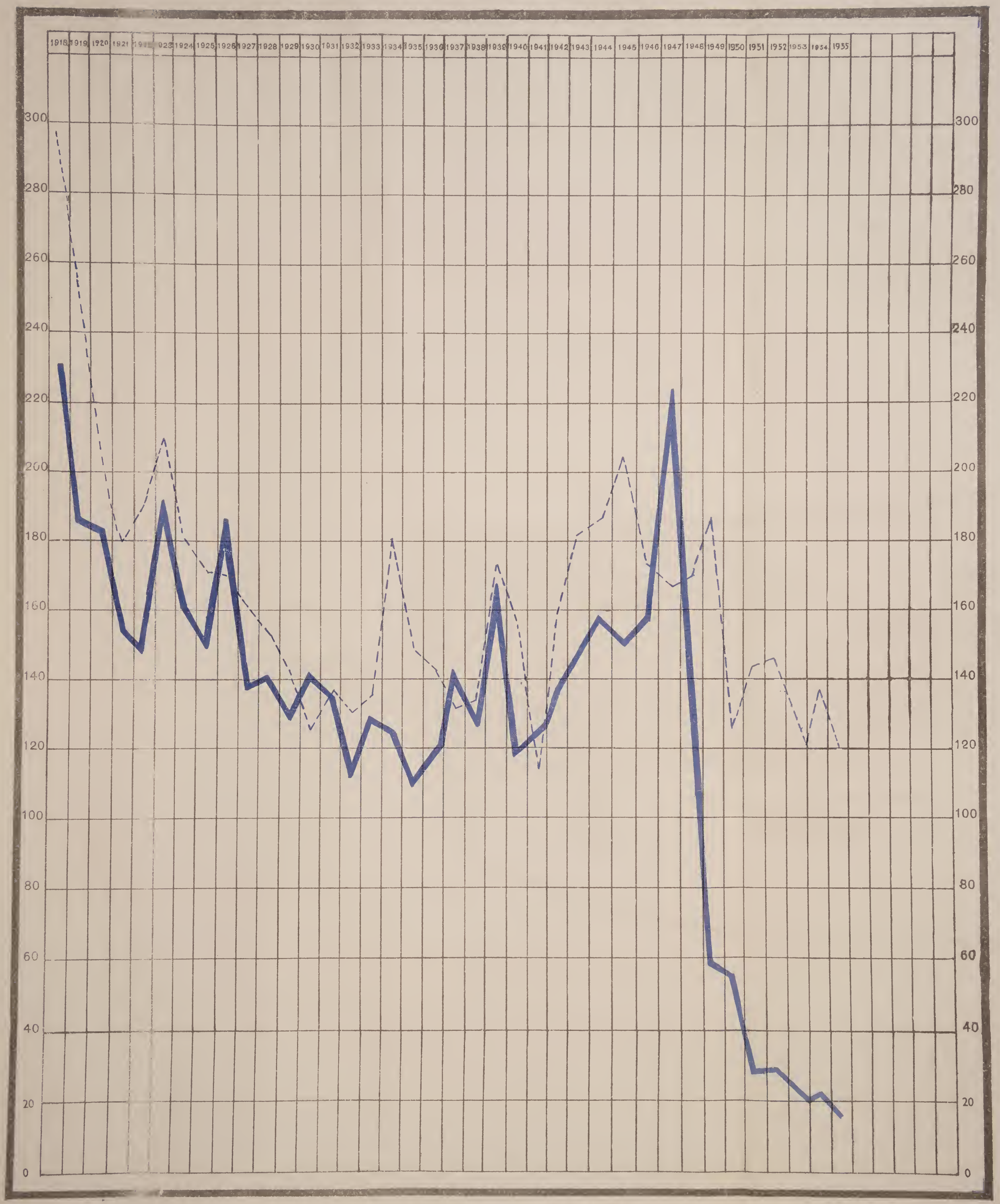
Non-Pulmonary Tuberculosis—Forms, notifications and Deaths, 1955

Forms	Notifications	Deaths
Miliary Tuberculosis	—	1
Tuberculosis of Meninges	—	1
Do. Spine and Bones	1	1
Do. Peritoneum	—	—
Do. Larynx	—	—
TOTAL	1	3

CHART F

Port-of-Spain

Pulmonary Tuberculosis — Notifications and Deaths 1918-1955



Deaths from Non-Pulmonary Tuberculosis, 1924-55

Period	Deaths	Rate per 100,000 population
Yearly Averages:		
1924–28	15	23
1929–33	15.2	22
1934–38	10	13
Average 1924–38	13.4	19
Year 1939	15	17
1940	14	15
1941	6	6
1942	4	4
1943	9	9
1944	10	10
1945	13	12
1946	14	14
1947	11	11
1948	6	6
1949	10	10
1950	14	13
1951	7	7
1952	12	11
1953	6	5
1954	4	3
1955	3	3

ENTERIC FEVER

This is an infectious disease to which public health officers devote the greatest study and attention because of the important bearing a high incidence of and death rate from, typhoid fever has on the general state of enviromental hygiene obtaining in the area in question.

For it is an undoubted fact that where the general state of sanitation is poor and particularly where the disposal of sewage is so inefficient that contaminated faecal matter can find its way, either through the consumption of contaminated foodstuffs or by drinking infected water, into the alimentary tract of the individual, there invariably will be found a high incidence of typhoid fever and a correspondingly high death rate. In other words if the faeces of a case of typhoid fever can be thoroughly disinfected and promptly disposed of by means of a water borne sewerage system, the germs of this fever can find no suitable place or opportunity to multiply.

Even so there must needs be a vector and it is against the vector that our efforts are mainly directed.

Of all the vectors in the Urban Sanitary District it can be stated that that which is most commonly met with and which is most likely to convey the infection is food, particularly food of the green vegetable variety like water cress, lettuce, cabbage, tomatoes and fruit which are usually consumed without cooknig, or sometimes even without washing.

Water cannot be and is not, under existing circumstances, indicted as a vector. In the days before the chlorination of the water supply, i.e., before 1924, water was certainly a vector, in fact the chief vector, and hundreds of cases used to occur, but since that year the number of cases of typhoid fever went down steeply and continued to do so consistently, and seeing that a small amount of residual chlorine is always maintained on the Distribution System to deal with any possible accidental bacterial contamination, it is not surprising that this should be so. It can be stated with almost certain truth that the cases of enteric fever that occur in the City nowadays are due to foodstuffs contaminated with infected faecal matter, to occasional contact cases arising from neglect to consult a doctor or to report a case, and to carriers of the disease who are careless in their habits and who are employed as food handlers.

Very few contact cases are met with nowadays, as even in the poorly sanitated areas where there is overcrowding of people under barrack conditions, a person suffering from fever can get and usually gets the benefit of medical care and attention and this Department makes sure that such a case is always referred to Hospital for proper isolation.

Carriers, as far as we know, have been and are responsible for few cases—I can remember only one carrier, a milkman, being responsible for conveying infection to three cases within the limits of the City—and this is very likely due to the fact that great care is taken in the Hospital to see that the person convalescing from typhoid fever is not given his discharge whilst still passing typhoid bacilli in his faeces or urine.

The usual routine is for 3 consecutive tests of urine and faeces to show negative results before the patient is permitted to go home.

We are, therefore, left with contaminated foodstuffs and this is where we ought to concentrate our efforts if a further reduction in the number of cases of typhoid fever in the Urban Sanitary District is to be achieved.

This, coupled with the installation of a water borne sewerage system in the still unsewered areas of the City and particularly in the East Dry River and Belmont Sub-districts, gives us our greatest hope that the day when typhoid fever will be only a name on the lips of the residents may not be too far distant. In the year under report 13 cases of typhoid fever were notified to the Department and one death registered. These figures represent the lowest number on notifications and deaths recorded in the Department since the inauguration of the Local Sanitary Authority by the Public Health Ordinance in January 1917, and a very gratifying reflection of the efforts of the Public Health Department directed to checking the incidence and preventing the spread of the disease.

ENTERIC FEVER

Notifications and Deaths, 1918-55

Period	Notifications	Deaths	Death Rate per 100,000 population
Year 1918	495	104	152
Yearly Averages:			
1919–23	301.8	67.8	103
1924–28	162.28	25.2	39
1929–33	37	10.8	16
1934–38	59.8	14.6	19
Average 1919–38	140.3	29.6	44
Year 1939	75	15	17
1940	70	11	12
1941	56	14	14
1942	37	12	12
1943	38	12	12
1944	32	9	9
1945	55	10	9
1946	37	8	8
1947	68	7	7
1948	42	5	5
1949	36	5	5
1950	14	3	3
1951	32	5	5
1952	32	8	7
1953	36	3	3
1954	15	3	3
1955	13	1	1

Inoculation of Enteric Fever Contacts, 1955

T.A.B. Injections

Year	Number Receiving one Injection	Number Receiving two Injections	Total
1947	250	222	472
1948	85	61	146
1949	101	44	145
1950	64	32	96
1951	329	249	578
1952	66	26	92
1953	213	146	359*
1954	101	46	147
1955	50	21	71

*Mass inoculations were carried out during the 1953 outbreak of Enteric Fever at Arima and 8,250 City inhabitants, in addition, were inoculated.

PNEUMONIA

Pneumonia is an infectious disease that was declared notifiable when the Public Health Ordinance was proclaimed in January, 1917 because it was a well known fact that large numbers of cases of pneumonia of all types were occurring at the time in the Urban Sanitary District.

It was then one of the principal killing diseases and, occurring as it does with greater frequency among the poorer sections of the community who lived in the more congested and badly sanitated sub-districts, it was responsible for a large number of deaths.

In addition, apart altogether from the question of the infectious nature of the disease and the spread by droplet infection from the sick to the healthy, it left a good deal of invalidism in its trail giving rise, as it often does, to anaemia, pulmonary tuberculosis, empyema, lung abscess and even heart disease.

The mortality then was high, usually about 30 per cent., and there was general scare and alarm whenever a case of pneumonia occurred in the family.

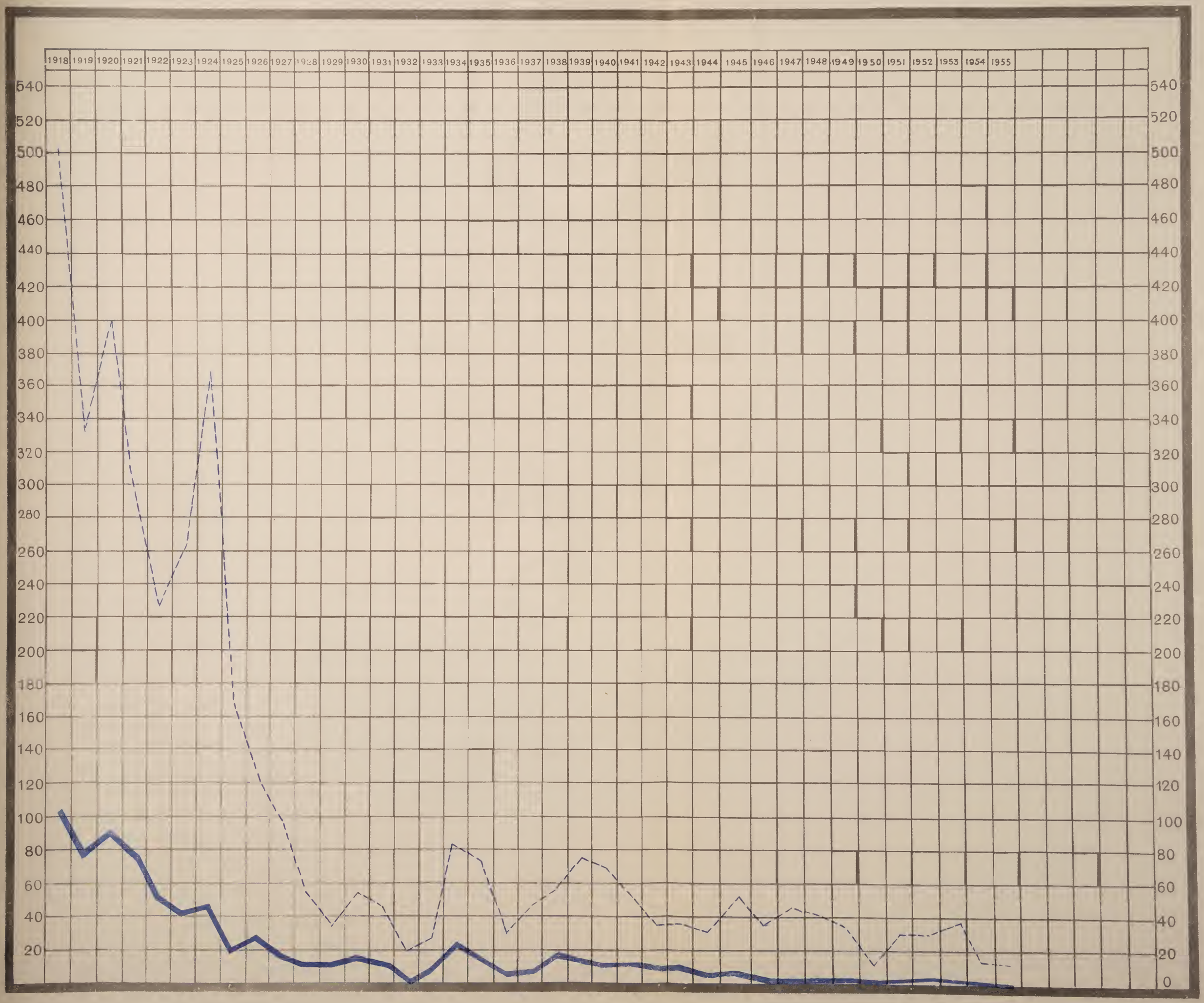
Being a disease of such serious import at that time, practitioners conscientiously discharged their statutory duty of notifying such cases to the Public Health Department and the Department was thus enabled to adopt the preventive measures of isolation in hospital when that was necessary, of terminal disinfection and of help and advice in current disinfection. Removal to hospital was then the accepted practice and patients were easily persuaded then that isolation and treatment in hospital gave them a much better chance of recovery.

For the first twenty-five years, i.e., from the year 1917 to the year 1941, the average number of notifications was 110 and the average number of deaths 72.

In the years 1942 and 1943 epidemics of the disease occurred with notifications mounting to 332 and 251, and deaths 152 and 149 respectively.

Since 1944, however, a change has taken place in that the number of notifications which are being received at the Department either equal or are fewer than the deaths which are being registered. That means that practitioners are not devoting the same care and attention to their statutory duty as they did previously and there must be large numbers of cases of pneumonia who are left "un-notified".

CHART G
Port-of-Spain
Enteric Fever–Notifications and Deaths 1918-1955



This Department is, as a result, not given the opportunity to apply promptly the well known measures directed to the isolation of the case or the prevention of the spread of the disease to others.

This is greatly to be deplored as pneumonia is still a menace in the East Dry River and Belmont Sub-districts where the residents are poor, very often undernourished and where congestion, overcrowding, and drainage, inadequate water supply and improper disposal of faecal matter and refuse are the order of the day.

In these conditions the disease reaps a harvest in spite of the more efficient drugs and antibiotics at our disposal nowadays, and serious complications like pulmonary tuberculosis, lung abscess or even heart disease are known to occur. These cases should all be removed to Hospital where they can be more efficiently isolated and the necessary care, and attention and the appropriate treatment efficiently administered.

During the year under report 39 cases of pneumonia were notified and nearly twice that number of deaths, 65, were registered given a death rate of 56 per 100,000.

Though this latter figure does represent a gradual decline in mortality over the last 12 years it is still a figure that is too high for a disease the cause of which is known and for which so much in the way of treatment can be done.

PNEUMONIA—(All Forms)

Notifications and Deaths, 1922-55

Period	Notifications	Deaths	Death Rate per 100,000 population
Yearly Averages :			
1922–26	111.8	78	123
1927–31	69.8	53.4	79
1932–36	155.4	80.6	110
Average 1922–36	112.3	70.7	104
Year 1937	125	85	110
1938	101	70	83
1939	107	59	65
1940	69	63	68
1941	138	88	90
Average 1937–41	108	73	83
Year 1942	332	152	153
1943	251	149	146
1944	109	97	93
1945	118	79	74
1946	87	61	61
1947	75	64	67
1948	62	51	52
1949	73	74	73
1950	64	54	52
1951	81	80	75
1952	68	72	66
1953	46	52	47
1954	48	58	51
1955	39	65	56

DIPHTHERIA

Twenty years ago the number of cases of diphtheria that were notified to the Department was in the vicinity of 30 a year but they were all of a mild type and the deaths that occurred at that time, about 3 a year, were usually the result of neglect on the part of parents or guardians or of mistakes in diagnosis on the part of the practitioner, laryngeal involvement being the usual terminal complication.

During the last ten years, however, diphtheria is causing anxiety and concern to medical officers of health because of a change in type of the disease.

Cases of laryngeal diphtheria are more frequent and the scare and alarm associated with such cases has resulted in a greater demand for active immunisation by parents for their children.

In fact this is the practice adopted when contacts of notified cases are brought to the Department by Sanitary Inspectors in the course of their routine duties, two doses of APT being given children and three doses of TAF to adults at intervals of one month.

It is a matter of urgent necessity that the possibility of diphtheria be always borne in mind in cases of sore throat, that the throat be always inspected in cases of fever, and if the least suspicion is aroused a swab taken, that cases of diphtheria be notified to medical officers of health at the earliest possible opportunity, that they be effectively isloated preferably, of course, in hospital and that treatment be begun with antitoxic serum immediately after the swab is taken and always before the result of the culture is received from the bacteriological laboratory.

It is proposed to make an extensive trial of the triple vaccine that is now on the market and which combines whooping cough, tetanus, and diphtheria in one vaccine with a view to assessing the results obtained as against those with diphtheria toxoid alone.

During the year under report 20 cases of diphtheria were notified and one death registered, compared with 26 notifications and one death in the previous year.

DIPHTHERIA

Notifications and Deaths, 1917-55

Period	Notifications	Deaths	Death Rate per 100,000 population
Yearly Averages :			
1917–21	11.8	1.4	2
1922–26	14.8	2	3
1927–31	23.8	1.6	2
1932–36	29.8	2.2	3
Average 1917–36	20	1.8	3
Year 1937	30	4	5
1938	16	3	4
1939	61	2	2
1940	37	2	2
1941	30	2	2
Average 1937–41	34.8	2.6	3
Year 1942	18	3	3
1943	40	4	4
1944	19	3	3
1945	20	5	5
1946	22	2	2
1947	23	2	2
1948	9	1	1
1949	11	2	2
1950	37	3	3
1951	28	1	1
1952	20	1	1
1953	33	1	1
1954	26	1	1
1955	20	1	1

CHICKEN POX

Chicken Pox is a notifiable disease that possesses a high degree of infectivity and it is not uncommon to find a whole family of children affected with the disease especially in overcrowded and congested quarters.

It is not, however, an infectious disease that causes so much alarm to parents or so much concern to the public health officer when it is correctly diagnosed, even though isolation in hospital is impossible in the large majority of cases due, of course, to lack of sufficient bed space.

Never, in the history of the Public Health Department of the City, has a return been received in which chicken pox was listed as a cause of death, but it is possible for complications like encephalitis and broncho-pneumonia to occur in a case of chicken pox and for pulmonary tuberculosis to be a sequela to the disease, and in debilitated and undernourished patients these latter may end fatally.

The real reason why chicken pox has been made a notifiable disease and why it is so important that practitioners discharge their statutory duty in this regard is that a severe case of chicken pox may simulate a case of small pox or alastrim very closely, and a missed case of small pox may be fraught with dire consequences to the whole community and lead to serious international consequences, small pox being a dangerous infectious disease.

It is for this reason that medical officers of health make it their business to see as many cases of chicken pox as possible and would like, if it were at all possible, to have all cases of chicken pox removed to hospital for isolation, observation, and treatment.

During the year under report there occurred again a mild epidemic of chicken pox, 113 cases being notified to the Department.

CHICKEN POX

Notifications, 1924-55

Period	Notifications	Period	Notifications
Yearly Averages :			
1924–28	19.8	Year 1944 ...	33
1929–33	41	1945 ...	122
1934–38	110.4	1946 ...	196
1939–43	42.6	1947 ...	57
		1948 ...	51
		1949 ...	57
		1950 ...	96
		1951 ...	95
		1952 ...	94
		1953 ...	51
		1954 ...	133
		1955 ...	113

ACUTE ANTERIOR POLIOMYELITIS

When one considers the scare and alarm associated with cases of this infectious disease and the reports of the large numbers of these cases that occur in the cities of Europe and America, and the deaths and crippling effects that it gives rise to, we in the City and Colony are fortunate in that so few cases of acute anterior poliomyelitis (infantile paralysis) do occur normally. It is true that the disease is endemic and nearly every year a few cases are notified, and also that epidemics occur at intervals, but so far we have in large measure been spared the havoc, misery, and suffering that this disease inflicts on other peoples and other countries.

As has been reported in my last annual report, an epidemic of 35 cases occurred in 1954 but these cases were nearly all of a mild nature and no deaths were registered.

In the year under report only two notifications were received at the Public Health Department, and again no deaths were certified to the disease.

How long this not unfavourable state of affairs will continue, no one can tell and a change in type of the disease with all the dire consequences attendant upon this, is a possibility that cannot be discounted, now that air and sea traffic has brought us in such close touch with countries which are so severely afflicted.

ACUTE ANTERIOR POLIOMYELITIS

Notifications and Deaths, 1927-55

Year	No. of cases reported	Deaths	Year	No. of cases reported	Deaths	Year	No. of cases reported	Deaths
1927–29 ...	—	—	1936 ...	3	—	1941 ...	15	4
1930 ...	5	1	1937 ...	10	1	1942 ...	26	3
1931 ...	—	2	1938 ...	2	—	1943–44 ...	—	—
1932 ...	3	—	1939 ...	1	—	1945 ...	—	1
1933–35 ...	—	—	1940 ...	—	—	1946 ...	1	—
						1947 ...	—	1
						1948 ...	3	2
						1949 ...	4	—
						1950 ...	—	—
						1951 ...	—	—
						1952 ...	3	—
						1953 ...	—	—
						1954 ...	35	—
						1955 ...	2	—

OTHER NOTIFIABLE INFECTIOUS DISEASES

No case of acute ascending myelitis or of encephalitis lethargica was notified to the Public Health Department during the year 1955.

No notifications of any of the other dangerous infectious diseases : yellow fever, plague, small pox, typhus fever, cholera anthrax or alastrim, were received at this Department during the year under report.

NON-NOTIFIABLE INFECTIOUS DISEASES

Under this heading are usually listed eight diseases 3 of which are usually spread by means of droplet infection, viz., measles, whooping cough, influenza; 2 by close contact with the individual suffering from the disease, viz., syphilis and leprosy; 2 by infection of the body with contaminated faeces, viz., dysentery and ankylostomiasis; and 1 by means of an intermediate host, the mosquito, viz., malaria.

They are, as can be seen, of varying degrees of infectiousness but they can be and are often responsible for much ill-health and incapacity and can exact and do exact a heavy toll of mortality.

Measles and whooping cough are among the common ailments of childhood and spread with great rapidity from child to child; in fact in times of great epidemics of these diseases they have been made notifiable in order that public health officers might be given the opportunity of knowing where they are occurring, and of applying the preventive measures of isolation and current and terminal disinfection as far as it is possible to do so.

Syphilis and leprosy are contagious diseases and are spread by intimate contact, though only intimate contact over a period of years serves to transmit leprosy as has been demonstrated time and again at the Chacachacare Leprosarium.

They are responsible for much suffering, misery, social stigma, economic wastage due to loss of labour and man power, invalidism and disease of the various systems of the body, and the mortality they exact is quite appreciable. In fact large scale schemes are at the moment being actively executed by the Venereal Disease and Leprosy Divisions of the Health Department of Government whose efforts are directed to the diminishing of the morbidity and mortality attributable to these diseases.

Ankylostomiasis is a rare disease within the limits of the City but cases do occasionally occur in the upper hilly areas of the East Dry River and Belmont sub-districts where faecal matter is apt to escape from defective privy cesspits and to soil the toes and feet of residents who go about barefooted.

Malaria also is nowadays a rare disease and returns of deaths certified to malaria are received occasionally at the Public Health Department, but invariably they are deaths that have occurred at the Colonial Hospital, Port-of-Spain, and the victims are inhabitants of malarious areas outside the limits of the City.

It is to be regretted that death returns only are available to gauge the relative incidence of these diseases and even those can be grossly misleading seeing that many deaths certified to other well known and common causes are indeed and in fact caused by one or other of these diseases the complication of the disease being listed as the immediate cause of death; such, at times for instance, is a death certified to cerebral thrombosis, coronary thrombosis, paraplegia, aneurysm, aortic regurgitation, or even arterio-sclerosis which are all quite often caused by syphilis, this being the basic underlying disease that was responsible for the immediate cause of death.

Again liver abscess may be the only clinical manifestation of amoebic dysentery, anaemia of ankylostomiasis, and myocardial degeneration of antecedent influenza. It would be misleading, therefore, to rely on these death returns to give any accurate indication of the relative prevalence of these diseases in the City, or to determine where the victims of these diseases acquired their infection, as it is a well known fact that investigation of a case after death does not meet with the success that is likely to be achieved if the case were notified during life.

Notifications would go a long way to solve these difficulties and in spite of the fact that there are certain objections which may conscientiously be entertained when the question of notifying some of these diseases is considered like the social and domestic aspect of syphilis, the lack of accuracy in notifications of malaria, &c., they are not insurmountable and these diseases should for the reasons stated quite definitely be included in the list of notifiable infectious diseases.

As a matter of fact, at the time I write, malaria has been declared a notifiable infectious disease by the Central Board of Health.

Non-Notifiable Infectious Diseases—Home and Hospitals Deaths (1955)

Diseases	Deaths			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1954
	At Home	At Hospital	Total		
Malaria	—	—	—	—	—
Whooping Cough	—	—	—	—	100.00
Influenza	—	—	—	—	100.00
Dysentery	—	—	—	—	100.00
Ankylostomiasis	1	—	1	—	—
Syphilis	9	3	12	25.00	—
Leprosy	—	—	—	—	—
Total	10	3	13	23.08	29.41

MALARIA

Time and again in these reports I have referred to the fact that malaria cannot be considered to be a problem of public health importance within the limits of the City.

This is an undisputed fact and every survey undertaken with a view to detecting the possibility of acquiring malaria within the limits of the City—and there has been two such within the last 20 years—has proved beyond the shadow of a doubt that anophelene breeding is infinitesimal, only a few larvae and on occasions adult mosquitoes being met with and then only in the extreme eastern, northern and western limits where these areas are in contact with the adjoining areas outside the City which were at one time highly malarious.

Thanks, however, to the splendid efforts of the Malaria Division of the Health Department of Government these adjoining areas are being progressively freed from the infection of malaria and the danger of this disease getting a foothold in the City remains as remote as it ever was.

In spite of this not unfavourable situation, there can be no let-up in this work of anopheles control, and the anophelene and culex section of the Anti-Mosquito Unit of the Public Health Department has always to be on the alert, if the position that has been won after so many years of consistent effort directed specifically to the eradication of possible anopheles breeding grounds is to be maintained.

That must inevitably be so when we consider that cases of acute malaria do undergo treatment in the wards of the Colonial Hospital, Port-of-Spain, from time to time and if the anopheles density were to attain any significant proportion, widespread infection with the malaria parasite is a distinct possibility, and an outbreak of malaria an imminent danger.

It is my duty once again to make reference to the Cocorite Swamp and adjoining lands. Thirteen years ago in the report for the year 1943 I stated : "Already joint efforts by Government and ourselves have been undertaken in instituting and maintaining temporary measures of cleaning, oiling, and in some cases filling drains and pools in the Cocorite Estate of the Corporation, a very prolific breeding ground of malaria-carrying anopheles mosquitoes and plans are being made for the complete eradication of these breeding places by permanent major works of drainage and swamp reclamation."

The position today remains substantially the same, and these temporary works continue, as they must, if no permanent major works are executed and Government continues to spend between 10,000 and 12,000 dollars each year on purely palliative measures.

One hundred and thirty-six thousand dollars could have gone a good part of the way in the reclamation of this Swamp, and building lots in a residential area, which are so urgently needed, could have been made available to the hard pressed residents of the City and its suburbs. I am again to record our thanks and that of the Municipality to the Malaria Division of the Health Department of Government for their close co-operation and the ready assistance given in the various mosquito problems that affect the City.

In fact the work of the Malaria Division has been so well planned and directed and so conscientiously executed that malaria bids fair to cease being a major public health problem in the Colony, and with the declaration of malaria as a notifiable infectious disease, the auspices are now favourable for the complete eradication of malaria, an objective to which we have committed ourselves in keeping with our international obligations.

The routine work of the Anti-Mosquito Unit as carried out by its culex and anopheles section continued unabated during the year under report and every effort was made to see to it that no falling off in energy, drive, and enthusiasm took place.

Depressed areas where water is liable to collect, stagnate and breed mosquitoes were filled in, pools oiled with malaria oil, the banks of the Maraval River were trimmed and the bed canalised by the Maraval River gang, privy cesspits were oiled, underground drains and culverts were cleared, and directions given to ensure their regular and effective flushing.

In the year under report no death returns in which malaria was stated to be the cause of death were received at the Department.

Malaria—Local Distribution of Deaths, 1946-55

Sub-districts	Deaths									
	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
City Proper ...	6	—	—	1	—	—	—	—	—	—
St. Clair ...	—	—	—	—	—	—	—	—	—	—
East Dry River ...	1	—	1	—	—	—	—	—	—	—
Belmont ...	2	2	1	—	—	—	—	—	—	—
Woodbrook ...	2	1	—	—	—	—	—	—	—	—
St. James ...	1	2	1	—	—	1	—	—	1	—
Total ...	12	5	3	1	—	1	—	—	1	—

SYPHILIS

Syphilis is a disease that is of particular interest to the public health worker in that it poses important problems in the curative field, in the preventive field, and in the sociological field of medicine, problems that must all be solved if the elimination of the widespread damage wrought by this disease is to be achieved.

Fortunately, in so far as the City of Port-of-Spain is concerned, the Venereal Disease Division of the Health Department of Government established with the help, advice, and under the direction of Colonel O. C. Wenger in 1943, and supported then by funds provided by the Development and Welfare Organisation but now run entirely by Government, continues to function efficiently and to achieve results which thirteen years ago would have been thought to be well nigh impossible in such a short space of time, and I am to record the gratitude of the Local Authority for the great benefit to the public health of the City that has as a result accrued.

Venereal disease is being more and more detected and subjected to proper treatment, the public conscience has been awakened to the damage, physical and mental, caused by these diseases and even re-education and rehabilitation of some members of the prostitute class. who are largely responsible for the ready spread of the disease, has taken place.

It is gratifying to be able to record a growing consciousness on the part of the citizens of the Urban Sanitary District of the menace that syphilis is to the health of the community by reason of the widespread damage to the physical system that it can cause, of the part in the health and welfare of mothers and children that it plays, of its relation to infant mortality particularly the neo-natal portion of infant mortality, and particularly of the moral degradation that leads up to and is associated with the disease, and of the domestic unhappiness and disruption that it can give rise to.

Enquiries are made regularly at the Public Health Department about a "blood test" or a "check up" and there is no difficulty whatsoever in persuading patients to go to the Caribbean Medical Centre for advice and treatment and to continue with treatment until they have been pronounced cured.

What a contrast this is to what obtained twelve years ago when concealment of the disease was the order of the day, when the stigma of venereal disease was an intolerable burden to bear and when it was simply impossible to get patients to persevere with treatment until pronounced cured, especially when once the privy sore had healed.

The delicate tissues of the central nervous system, of the heart and blood vessels, of the liver and kidneys, are nowadays the chief seat of the clinical manifestations of syphilis, and there can be no denying the fact that we are now reaping the harvest that the indifferent, inadequate, and half-hearted and often inconclusive treatment of former days has sown.

We must be careful to make sure that no repetition of this sad and unsatisfactory state of affairs does take place by analysing and assessing carefully our modern methods of treatment and particularly those "intensive short term" methods of treatment by antibiotics that are so popular nowadays with patients.

One important result that is being achieved by the work of the Venereal Diseases Division is the opportunity presented to compile more accurate statistics of the morbidity and mortality attributable to syphilis, due to more accurate diagnosis on the part of practitioners on the one hand and to greater appreciation of the underlying basic causes of certain clinical manifestations on the other; and as a direct result syphilis is being more and more recognised as the primary basic cause of such diseases of the heart and circulatory system like aneurysm, coronary thrombosis, and even some cases of arterio-sclerosis; of diseases of the brain and spinal cord like cerebral thrombosis, hemiplegia, meningitis; of the liver and kidneys like cirrhosis of the liver and chronic nephritis.

During the year under report, the returns received at the Public Health Department showed 13 deaths certified to syphilis giving a death rate of 10 per 100,000.

Deaths from Syphilis 1918-55

Period	Deaths	Rate per 100,000 population
Yearly Averages :		
1918–22	16.2	24
1923–27	56.8	88
1928–32	28.2	41
1933–37	21.8	29
Average 1918–37	24.6	37
Yearly Average 1938–42	24.6	27
1943	29	28
1944	36	35
1945	22	21
1946	20	20
1947	21	22
1948	8	8
1949	7	7
1950	8	8
1951	11	10
1952	6	5
1953	7	6
1954	8	7
1955	13	10

DYSENTERY, DIARRHOEA AND ENTERITIS

These diseases are usually grouped together though their causes may be so widely different, and this, for two reasons, viz., that they all present a common clinical manifestation, viz., the passage of frequent stools of mucus sometimes mixed with blood and that their method of spread is usually through foodstuffs contaminated with infected faecal matter particularly foodstuffs that are usually eaten raw like green vegetables, tomatoes, fruit, or foodstuffs of the made up variety like mayonnaise, pies, sausages, ice cream, pastry, &c.

Though only death returns are available to judge of the part they play in the public health of the City, there can be no doubt that they are responsible for a high mortality rate and the number of deaths attributed to them has been as high as 193 in the year 1918 to an average of 44 during the past five years. It is important, therefore, to determine with some degree of accuracy the cause of these diseases as only when that is done can intelligent preventive action be taken.

The pure dysenteries are caused either by protozoa, e.g., the amoeba histolytica, or by the dysentery bacilli and diarrhoea and enteritis either by organisms of the salmonella group or again by dysentery bacilli; but there can be no doubt that included under this heading are many cases of chronic disease of the gastro-intestinal tract such as cancer, ulcerative colitis, tuberculosis and even cirrhosis of the liver, and unless these cases are carefully sorted out and the exact cause of the disease determined, it is going to be difficult and futile to apply successful preventive measures.

One thing seems to be clear, viz., the association of the pure dysenteries and of diarrhoea and enteritis with dirt, squalor and the inadequate disposal of excreta, with overcrowding and congestion, and with malnutrition and under nutrition is definite and is illustrated by the fact shown in the table listed below, viz., that they are more prevalent in the most congested and least sanitated sub-districts of the City, and measures directed to the improvement and the betterment of these areas are likely to lower the incidence and diminish the mortality from these diseases in these areas.

Children particularly fall easy prey to these diseases especially in hot weather when multiplication of organisms takes place so rapidly, when flies are so prevalent and the possibility of contamination of foodstuffs an ever present danger.

The diarrhoea and enteritis of infants appears to be a disease *sui generis* caused either by organisms of the food poisoning or dysentery variety and it appears certain that the vehicle of transmission is contaminated milk or liquid foods in which fresh milk or dried milk forms the essential part. Exposure of this type of foodstuffs to the dirt, dust, germs and filth of the polluted atmosphere of an open kitchen or pantry where the temperature is suitable for the rapid multiplication of organisms is almost certain to lead to contamination.

It is important always to bear in mind that milk foods are very susceptible to contamination, should not be left exposed and should be consumed as soon as they are prepared and the greatest care devoted to bottles, spoons, saucers, cups and teats, &c., and above all to the hands of those in attendance upon infants and young children.

In this connection the proper and efficient pasteurisation of milk in keeping with statutory requirements and under effective supervision, for which public health officers have been clamouring for so many years, would go a long way in reducing the incidence of this infection of infancy and childhood which is fairly prevalent and is responsible for an appreciable mortality.

During the year under report 45 deaths certified to diarrhoea and enteritis were recorded, with the East Dry River and the St. James sub-districts again furnishing the bulk of the mortality, 16 and 12 deaths respectively.

Deaths from the Dysenteries—1918-55

Period	Deaths	Death Rates per 100,000 population
Year 1918	43	63
Yearly Averages :		
1919–23	38.2	58
1924–28	32	49
1929–33	14.8	21
1934–38	5.4	7
1939–43	7.4	8
1944–48	3	3
Average 1919–48	16.8	23
Year 1949	1	1
1950	2	2
1951	1	1
1952	3	3
1953	3	3
1954	2	2
1955	—	—

Deaths from Diarrhoea and Enteritis—1918-55

Period	Deaths	Death Rates per 100,000 population
Year 1918	193	284
Yearly Averages :		
1919–23	143.6	218
1924–28	72.8	112
1929–33	52.8	76
1934–38	40	52
1939–43	78.4	81
1944–48	46	44
Average 1918–48	76.16	103
Year 1949	30	30
1950	37	35
1951	42	39
1952	39	36
1953	58	51
1954	37	32
1955	45	38

Diarrhoea and Enteritis—Deaths in Sub-Districts 1955

Sub-districts	Deaths
City Proper	7
St. Clair	1
East Dry River	16
Belmont	7
Woodbrook	2
St. James	12
TOTAL	45

OTHER PRINCIPAL CAUSES OF DEATH

Cardiac and Vascular Diseases

There has been no lessening of the toll of mortality taken by these diseases and the same facts must be recorded, viz., that whilst more and more victims are being claimed by these diseases, the causes for this attack on the delicate tissues of the heart and blood vessels are not sufficiently clear to enable preventive measures to be applied with the certainty that carries conviction.

It is true that in a certain number of persons who have fallen victims to these diseases, antecedent causes like syphilis, chronic kidney disease, chronic liver disease, chronic alcoholism, rheumatic fever, certain infectious diseases, &c., have been known to be at work but in the large majority of cases the causes remain obscure and the question why these delicate tissues of heart and blood vessels have been attacked with such disastrous results must in the present state of our knowledge remain unanswered.

Certain it is that the stresses and strains of modern life; the anxiety, worry and often uncertainty, associated with the day's work coupled with the pace of living which leaves so little time for rest and recreation, do play their part in aggravating existing diseases, but why one set of tissues seem to be immune and another set so easily and so early affected is a problem that still awaits solution.

In the circumstances the most that can be done by way of preventive measures is the extension and intensification of the health education campaign against syphilis, alcoholism and other systemic diseases, the early and thorough treatment of the chronic diseases referred to above, coupled with the elimination and prevention of those conditions, environmental and personal, that are suitable for the propagation and spread of infectious diseases.

Health education would also be able to assist victims of these diseases in a way of life that would conduce to their greater happiness and usefulness as citizens, as it is a well known fact that these diseases are most prevalent at those age-periods of life when the citizen can be of greatest use to the community by reason of his wisdom, knowledge and experience and, if nothing else, would help to postpone for some time the fatal day.

During the year under report 257 death returns in which cardiac and vascular diseases were certified as the cause of death were received at the Public Health Department.

Examination of the table listed hereunder shows that the older age-periods of 41-60 and over 61 years bore the brunt of the attack, 77 cases and 165 cases respectively, and the fact that the older the tissue the more susceptible it becomes to these diseases emerges clearly.

It is clear that as our measures directed to better and longer living succeed, so do our heart and blood vessels become more vulnerable to serious disease.

Deaths from Cardiac and Vascular Diseases in Age Groups—1955

FORMS	0–20 years	21–40 years	41–60 years	Over 60 years	Total
Diseases of Arteries and Valves :					
Aneurism	—	1	—	—	1
Arterio-Sclerosis and Atheroma	—	1	1	14	16
Coronary Thrombosis	—	—	10	14	24
Mitral and Aortic Incompetence	1	2	7	8	18
Other Diseases of Arteries and Valves	1	4	28	33	66
Diseases of the Heart :					
Auricular Fibrillation	—	—	—	—	—
Pericarditis	—	—	—	—	—
Myocarditis	—	3	6	28	37
Myocardial Degeneration	—	—	11	42	53
Cardiac Aneurism	—	—	—	—	—
Endocarditis	1	1	—	1	3
Other Cardiac Diseases	—	2	14	25	41
TOTAL	3	14	77	165	259

CANCER AND OTHER MALIGNANT DISEASES

Like the deaths attributable to cardiac and vascular diseases, it is customary to devote a special section to cancer and other malignant diseases seeing that these diseases appear to be giving rise to greater and greater mortality in the Urban Sanitary District.

In fact the number of deaths registered in the year under report, viz., 104, represents the second highest number ever recorded since 1917 when the Local Sanitary Authority was established by the Public Health Ordinance, Ch. 12. No. 4, though the rate per 100,000 population, .89, is the fourth highest rate recorded since 1917.

Greater accuracy in diagnosis and an increasing expectation of life are very likely responsible in part for the increased number of cases that are being seen nowadays, but that cannot be, and certainly is not, the full story though it must be admitted that the older the tissue the more vulnerable to cancer and malignant disease it becomes.

Here again it is not possible to apply any preventive measures that can be effective seeing that the specific cause of cancer still remains unknown in spite of much research and experiment.

A health education campaign, however, directed to the education of the public as to the hundred per cent. fatality of this group of diseases and as to the urgent necessity to treat every small lump or indolent ulcer with the respect it deserves and to seek early treatment by surgery, X-rays or radium would pay dividends and help to a greater understanding and appreciation of the toll of mortality that cancer and other malignant diseases are taking on the community.

Analysis of the tabulated statement listed herewith shows that in males the organ most affected is the stomach and in females the breast; and that twice as many deaths occurred in women as in men.

Cancer and other Malignant Diseases—1955

Malignant Neoplasms	Deaths	
	Males	Females
Malignant neoplasm of buccal cavity and pharynx	1	—
Malignant neoplasm of oesophagus	—	2
Malignant neoplasm of stomach	9	8
Malignant neoplasm of intestine, except rectum	3	10
Malignant neoplasm of rectum	—	4
Malignant neoplasm of larynx	1	—
Malignant neoplasm of trachea and of bronchus and lung not spocified as secondary	—	2
Malignant neoplasm of breast	—	14
Malignant neoplasm of cervix uteri	—	7
Malignant neoplasm of other and unspecified parts of uterus	—	13
Malignant neoplasm of prostate	2	—
Malignant neoplasm of skin	—	—
Malignant neoplasm of bone and connective tissue	2	2
Malignant neoplasm of all other and unspecified sites	13	10
Leukaemia and aleukaemia	—	1
Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	—	—
TOTAL	31	73

Deaths from Cancer and other Malignant Diseases—1918-55

Period	Deaths	Rate per 100,000 population
Yearly Averages :		
1918–22	44.4	67
1923–27	45.6	71
1928–32	44.6	65
1933–37	556.8	76
Average 1918–37	47.9	70
Yearly Average 1938–42	75.4	82
1943	88	86
1944	84	81
1945	80	75
1946	79	78
1947	75	78
1948	87	88
1949	91	90
1950	91	89
1951	103	94
1952	89	90
1953	113	102
1954	96	84
1955	104	89

SANITARY ADMINISTRATION

During the year under report the staff of the Public Health Department consisted of 206 employees of which 52 were on the permanent pensionable establishment and 154 on the non-pensionable establishment, otherwise known as the daily-paid staff.

There was one additional post created on the pensionable staff during the year, viz., the post of steno-typist which was created by the Establishment Committee in October and confirmed by the Council at the ordinary meeting at the end of October. This post was established to meet the needs of the Health Education Unit specifically, which was at that time taking shape in the Department as a separate entity.

This post, like the other vacant posts of Sanitary Inspector, Health Visitor, Clerical Assistant, Scientific Assistant, Supervisor of Cleaning of Cesspits, were not, and indeed could not be, filled during the year under report because of the non-existence at the time of the Local Services Commission which had to be appointed in accordance with section 23 of the Port-of-Spain Corporation (Amendment) Ordinance, No. 2 of 1954, but which was not for one reason or the other appointed during the year under report.

These posts were all, therefore with the exception of 1 of Sanitary Inspector and 3 of Health Visitor, filled by acting men and even at the time I write are still filled by acting men because the Local Services Commission, though appointed, has not yet begun to function.

I need hardly state how unsatisfactory to all concerned this is; it does not conduce either to efficiency or harmony as an acting man normally stands still and marks time, and he does not normally wish to alter to any extent the *status quo* and the work of the Department is consequently impeded.

Because again of the Council's inability to implement the Regrading Scheme it had adopted for the regrading of salaries of its staff, 1 post of Sanitary Inspector and 3 of Health Visitor had to remain un-filled there being no qualified and suitable sanitary inspector or health visitor who was willing to act in these posts at the same old salary rates that had been in existence prior to 1954, seeing that the Central Government was in need of such staff and was capable of attracting all those who were qualified because of a regraded rate of pay and of greater and more generous amenities.

Though at the time I write the Regrading Scheme has been implemented and the increased rates recommended are being paid, it will not be easy to recruit qualified staff because of the lack of those facilities and amenities that the Central Government provide for their qualified staff.

The Sanitary Inspectors who numbered 20 from the year 1920 to the year 1951 when 11 more were added to the staff, still number 31, but of these only 24 are permanent men; 5 vacancies are filled by men who have been at one time or other attached to the Central Government or other Municipalities, 1 by one of our retired sanitary inspectors who has been recalled to duty, and 1 post is still vacant, there being at the moment no recently qualified and suitable sanitary inspectors to fill the vacant posts.

The City was again divided into 18 sanitary districts with a sanitary inspector in complete charge of all the sanitary services in his district. In fact he is in a sense the Medical Officer of Health of his district and is answerable to the Chief Sanitary Inspector and ultimately to the Head of the Department for the health and sanitary state of his district.

He does house-to-house inspection of his district and in addition is in charge of the special services, anti-rat, anti-mosquito, anti-rabies, and disinfection when sections of these units are operating in his district and the Sanitary Inspector in charge of the Unit is away elsewhere.

His duties on these occasions comprise supervision and direction of personnel to ensure efficiency and discipline.

Each Sanitary Inspector is expected to do 25 house-to-house inspections a day and he is enjoined to "cover" his district, i.e., to inspect each and every premises in his district at least once in five weeks.

Seven other sanitary inspectors were employed in the year under report in the execution of duties of a special nature: One is the Buildings Inspector; one Inspector is in charge and control of the Anti-Rat and Anti-Bat Units; one Inspector is in charge and control of the Anti-Mosquito Unit; 3 Inspectors are assigned to food inspection work and see to the examination and registration of food handlers and food places throughout the City; the Senior Sanitary Inspector (Outdoor) is in charge of water sampling, patrols the various catchment areas of the river and well sources of water supply in addition to his normal duties of planning, directing, and supervising the work of the District Sanitary Inspectors.

The 3 posts of sub-overseers created in 1954 were filled by acting men early in the year under report and the two overseers and the three sub-overseers were attached to and supervised and controlled the non-pensionable staff which comprised the Anti-Mosquito Unit of 2 checkers, 1 recorder, 2 foremen, 9 supervisors, 32 aedes inspectors, 10 "trappers" and 12 "cleaners"; the Anti-Rat Unit of 1 timekeeper, 1 checker, 9 foremen and 27 rat trappers; the Anti-Rabies Unit of 1 checker and 5 bat-trappers; the Disinfection Unit of 2 spray-men and 4 oilers, and the Public Conveniences Unit transferred from the City Engineer's Department in 1943, of 14 caretakers.

The Unit maintained by the Corporation for the emptying of cesspits, cesspools and septic tanks was transferred, as I have stated before, to this Department in 1946 and it comprises 12 cleaners who are jobbers, 2 chauffeurs, 1 checker, 1 carpenter and mason and 1 cooper, 1 caretaker and deadman attendant at the Mucurapo Pumping Station, all under the direction and control of the Supervisor of the cleaning of cesspits.

All told in the year under report the outdoor staff comprised 25 Sanitary Inspectors, 2 Overseers, 1 Supervisor, 3 Sub-overseers and 135 miscellaneous workers on the non-pensionable staff, all under the care, direction and control and supervision of the Chief Sanitary Inspector.

The indoor staff, i.e., employees who work for the greater part of the day in the Public Health Department comprised 1 Senior Sanitary Inspector (Indoor); 2 Sanitary Inspectors; 2 Clerical Assistants; 1 Scientific Assistant; 1 Steno-typist; 2 Typists; 1 Messenger and 2 Office Attendants, all under the care, control, direction and supervision of the Deputy Chief Sanitary Inspector (Indoor).

The work of the indoor staff is, I need hardly state, equally as important and just as onerous as the work of the outdoor staff and they are concerned with correspondence of all kinds, messages, complaints, verbal and written reports, the issuing of licences, badges, certificates of registration, &c., the preparation of contacts and other applicants for inoculation, and the keeping of equipment, supplies and records relating to preventive inoculations, the keeping of the various registers, books, minutes, &c., of the Department, the compilation of statistics, the preparation of monthly, quarterly and annual reports, and last but not least the checking and verifying of the paysheets of the non-pensionable staff, preparation of the salary sheets of the pensionable staff, the keeping and bringing up to date of the various vote books, in fact all that appertains to the financial records of the Department.

Inspection of Premises, &c., by Sanitary Inspectors—1955

Average Monthly No. of Visits to Dwellings, Shops and other Premises	8,143

Inspection of Stores, Shops, &c.

	Average Monthly No. of Visits		*Average Monthly No. of Visits*
Provision and Meat Shops	207	Sweet Drink Carts	24
Provision Stores	77	Dairies and Cowsheds	60
Restaurants and Cookshops	45	Stables	23
Bakehouses	24	Goat Pens	68
Bread Depots	18	Aerated Water Factories	7
Cake and Ice Cream Shops	231	Soap Factories	2
Fry Shops	13	Other Factories	98
Hotels	15	Schools	35
Markets	6	Common Lodging Houses	4
Spirit Shops	37	Barber Shops	17
Ice Cream Carts and Pails	76	Dyeworks	1
Cako Trays and Baskets	61	Laundries	20
Provision Trays and Baskets	99	Garages	35
Bread Carts and Baskets	18	Tanneries	3
Fresh Fish Trays	17	Public Urinals	6
Oyster Vendor's Baskets	2	Boats	7
Plantain Carts	1		

Results of Notices and Verbal Directions—1955

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi-nated	Lime-washed	Oiled
Yard pavements	15	155	—	—	—	—	—
Depressions in yards	—	—	—	—	118	—	—
Yards	—	126	5,053	—	—	—	—
Drains, sinks, gullies, washing troughs, &c.	375	807	3,957	—	—	—	—
Lavatories, sewer basins, flushtanks, urinals, bath rooms, &c.	411	206	912	—	—	—	—
Privies	273	1,399	—	—	—	824	—
Cesspits	188	278	1,778	—	—	—	75
Manure Heaps	—	—	—	—	363	—	—
Rat Holes	—	—	—	—	244	—	—
Tree Shade, Overgrowths of bush ...	—	—	—	—	1,858	—	—
Dustbins	1,027	85	333	—	—	—	—
Dustbin covers	441	—	208	45	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	—	248	2,531	473	—	506	—
Aerated Water Factories	—	—	27	—	—	7	—
Bread Carts	—	—	—	1	—	—	—
Barracks, Common Lodging Houses ...	—	80	27	24	—	63	—
Garages, Kitchens	—	179	—	—	—	88	—
Cowsheds, Stables	—	82	469	—	—	204	—
Tanneries, Soap Factories, &c. ...	—	—	—	—	—	—	—
Close-boarding, Ventilation of Houses ...	18	—	—	—	—	—	—
Barber Shops and other Workshops ...	—	—	39	18	—	—	—
Schools	—	—	—	—	—	—	—

Reports to Water and Sewerage Department—1955

Reports	*Total*
Leaks, defective taps, chokes, &c.	1,577

Anti-Rabies Measures—1955

TRAPPING, &C., OF BATS

No. of locations inspected for roosts of bats	9,656

BATS CAUGHT

Artibeus Jamaicensis	59
Artibeus Palmorum	264
Desmodus	—
Perspicellota, Crodlio	9
Molossus Major	54
Noctilio Leporinus	1
Saccopteryx	—
Micromycters Megalotis	2
Phyllistoma	—
Glossophaga	18
Propteryx	—
	407*

*One (1) Pronops Centralis was caught in Diego Martin outside the City limits.

Building Plans, &c.—1955

Reports made by the Public Health Department were as follows:—

On plans, &c., for reconstruction or reconditioning of buildings ...	794
On applications for leases of land in Woodbrook and Gonzales Place	97
On premises in which building operations were in progress ...	204
On application for certificates of completion of buildings	88

Cleaning of Privies, &c.—1955

Under the Public Health Ordinance, Ch. 12. No. 4, Section 64 (1) (*c*), Cesspits, Cesspools and Septic Tanks were cleansed as follows:—

East Dry River	735
Belmont	696
St. James	329
Woodbrook	98
	1,858
Out Districts	—

Outstanding cesspits up to 31st December, 1955 numbered 70.
Average cost per cesspit emptied: $17.25.

Prosecutions—1955

CASES DETERMINED BY THE MAGISTRATE

Offences	*No. of Cases*	*Results Total Fines, &c.*
Failing to comply with nuisance notices	44	Fined $684.00
	8	Reprimanded
	229	Adjourned
	25	Dismissed
	66	Fresh Summonses
	372	
Breaches of Sale of Foodstuffs Bye-laws	78	Fined $790.00
	12	Reprimanded
	59	Adjourned
	17	Dismissed
	1	Withdrawn
	78	Fresh Summonses
	245	
Breaches of the Mosquito Bye-laws	1	Fined $50.00
Breaches of the Yellow Fever Regulations	2	Fined $64.00
GRAND TOTAL	620	

Cases	*Summary*	
125		Fined $1,588.00
20		Reprimanded
288		Adjourned
42		Dismissed
1		Withdrawn
144		Fresh Summonses
620		

Leave of Absence—1955

Officers	*Vacation Leave No. of Days*	*Sick Leave No. of Days*	*Local Leave No. of Days*
Alfred, E.—Sanitary Inspector	—	14	—
Bocaud, R.—Sanitary Inspector	28	14	5
Boxill, E.—Sanitary Inspector	—	7	10
Braithwaite, E.—Sanitary Inspector	—	14	12
Callender, E.—Sanitary Inspector	—	—	4
Castello, G.—Acting Sub-Overseer	14	—	—
Davidson, C.—Sanitary Inspector	—	—	12
de Four, H.—Sanitary Inspector	—	—	14
Dubois, C.—Sanitary Inspector	21	14	7
Farrell, M.—Sanitary Inspector	14	5	—
Forde, G.—Sanitary Inspector	—	—	11
Hinkson, G.—Sanitary Inspector	—	—	6
Hodge, Lennox—Sanitary Inspector	—	—	7
Holdip, M.—Sanitary Inspector	—	—	5
Howard, J. R.—Sanitary Inspector	168	—	—
Khan, V. S.—Sanitary Inspector	—	—	12
Langton, E.—Typist	28	11	—
McTurner, K.—Sanitary Inspector	—	35	—
Marcial, R.—Sanitary Inspector	28	—	—
Mitchell, K.—Sanitary Inspector	14	14	—
Mitchell, T. M.—Principal Assistant	42	7	—
Mohammed, F.—Sanitary Inspector	42	—	—
Nurse, G.—Sanitary Inspector	—	14	10
Parris, J. E.—Overseer	—	—	14
Perryman, V.—Acting Clerical Assistant	14	—	—
Philip, O.—Acting Sanitary Inspector	14	14	—
Rivers, F. B.—Sanitary Inspector	—	24	8
Romain, A.—Principal Officer	91	—	—
Samm, M.—Acting Sub-Overseer	14	—	—
Sampson, A.—Sanitary Inspector	42	—	5
Sansavoir, F.—Acting Sub-Overseer	14	—	—
Seon, F. E.—Sanitary Inspector	28	—	—
Thomas, F. A.—Sanitary Inspector	42	14	—
Turney, H.—Sanitary Inspector	42	7	—
Wilson, A.—Clerk	98	—	—

	Study Leave
de Four, H.—Sanitary Inspector	243

	Special Leave
Langton, E.—Typist	61

Staff—Resignations, Study Leave, &c.

RESIGNATIONS:

JUNIOR SANITARY INSPECTORS

Name	*Date of Resignation*	*Length of Service*
F. Mohammed	12th May, 1955	3 years and 4 months
F. A. Thomas	12th October, 1955	3 years and 9 months

STUDY LEAVE :

Grade "A" Sanitary Inspector de Four's two-year course in Health Education in the United Kingdom was completed in August, 1955.

FINANCIAL

Revenue and Expenditure—1953–55

Revenue	1953	1954	1955
Revenue collected by the Public Health Department	$ 634.40	$ 882.58	$ 929.17
Expenditure			
Salaries and allowances ...	$103,231.24	$105,469.66	$115,334.63
Wages and allowances	96,936.11	109,402.11	149,134.24
Materials, Maintenance, &c. ...	45,701.20	44,008.74	30,018.29
	$245,868.55	$258,880.51	$294,487.16
Disposal of Night Soil	6,790.58	7,203.20	7,175.41
Emptying of Cesspits	27,558.09	31,982.01	*38,542.59
Total	$280,217.22	$298,065.72	$340,205.16

*Emptying of Cesspits—Amount recoverable from house owners $13,157.47.

ACKNOWLEDGMENT

Another year, 1955, has passed us by and has taken its place in the annals of the history of the Local Sanitary Authority and as I come to the end of yet another annual report my thoughts go out, as indeed they must, to those who are around me and with me in this our life work.

The 206 employees of this Department are all human beings, flesh and blood; each man is a distinct entity often with a family to look after, with hopes, desires and expectations, anxious to carve a career for himself and to improve his lot in life.

The Head of a Department whilst never omitting to take cognisance of these important considerations must, however, leave no stone unturned to secure the complete integration of the individual with the machine so that the service, which in the case of the public health is the greatest of all that can be rendered in the field of human affairs—*salus suprema lex*—may be properly, thoroughly, efficiently and conscientiously rendered.

That we, the Public Health Department, have in a measure been able to render such service to the Urban Sanitary District in the year under report was almost entirely due to the unflagging devotion to duty, the unremitting effort, the continuous co-operation, and the unfailing loyalty of the staff, both indoor and outdoor, pensionable and non-pensionable under the able direction and leadership of the Chief Sanitary Inspector, Mr. O. E. Forde, and the Deputy Chief Sanitary Inspector (Indoor) Mr. T. M. Mitchell.

It is inevitable, of course, that gaps in the organisation do make themselves apparent at times, and that the frailty of human nature makes the call for and enforcement of, discipline an ever-present necessity, but I am happy to be able to record that the machine of the Department is kept well oiled and runs smoothly most of the time.

For this I am deeply grateful and I am not unconscious of the determination, the effort, the energy and the enthusiasm of one and all to attain this end, which I commend to the favourable notice of the Local Authority.

In the year under report Grade A Sanitary Inspector H. de Four returned to us after having completed a two-year course in health education at the United Kingdom where he obtained the Diploma in the content and method of Health Education of the University of London, for which achievement he must be congratulated.

We again, however, lost two of our junior sanitary inspectors, Sanitary Inspector F. Mohammed and Sanitary Inspector F. A. Thomas who resigned in May and October respectively, the former to go to the United Kingdom to better his lot and to advance his studies, the latter to Canada to work and, if possible, to study for a profession.

There can still be detected on occasions a feeling of dissatisfaction among the pensionable staff of the Department that the amenities enjoyed by the incumbents of similar posts in the Central Government still continue to elude the Sanitary Inspectors of this Department, and I am respectfully to request the Local Sanitary Authority to make haste to consider these facilities and amenities and where possible and reasonable to adopt them so that all officers, both central and local, will be on a basis of parity and this regular and irksome exodus of some of our most capable and best trained men can come to an end.